CIERVA MEMORIAL LECTURE, NINTH
The Next Generation of French Helicopters, L. F. G. Legrand (Lecture Summary), p. LXXXI (Sept.).

CIVIL AVIATION—*See* Air Transport

CLARKE, A. E. and BRAMWELL, Dr. A. R. S.
Selected Aspects of the Aerodynamics of Rotorcraft (Lecture), pp. 178--188S (Feb.).

CLARKSON, B. L.
Stresses in Skin Panels Subjected to Random Acoustic Loading, pp. 1000-1010S (Nov.).

CLEAVER, A. V.
Looking Ahead in Aeronautics—4: Astronautics—Its Development During the Second Century of the RAeS (1966-2066), pp. 373-384 (May).

COCKBURN, SIR ROBERT
A New Phase in Aviation? Fifty-Sixth Wilbur and Orville Wright Memorial Lecture, pp 199-208 (March).

COLBURN, P. J., SQUIRES, D. M. and O'HAGAN, M.
Television Broadcasting by Synchronous Satellite (Lecture Summary), p. LXXXII (Sept.).

COMPUTERS
Avionics—Towards the Twenty-First Century, P. A. Hearne (Second Century Paper), pp. 915-924 (Nov.).
Consequences of the Computer, pp. 557-559 (July).
The Digital Computer, pp. 592-593 (July).
Digital Control of Aircraft Powerplants, W. G. E. Lewis and G. E. Munns (Lecture Summary), p. XXVII (March), (Lecture), pp. 989-999S (Nov.).
The Future Role of Computers with Special Reference to Aerodynamic Design, B. Thwaites (Second Century Paper), pp. 275-284 (April).
The HERMES 8 Element for the Matrix Displacement Method, J. H. Argyris, I Fried and D. W. Scharpf, pp. 613-617 (July).
The LUMINA Element for the Matrix Displacement Method, J. H. Argyris, pp. 514-517 (June), Correction, p. 617 (July).
Operations Research in Aer Lingus, M. A. Foley, pp. 596-602 (July).
A Sequel to Technical Note 14 on the TUBA Family of Plate Elements, J. H. Argyris and K. E. Buck, pp. 977-983 (Nov.).
The SHEBA Family of Shell Elements for the Matrix Displacement Method, J. H. Argyris and D. W. Scharpf, pp. 873-883 (Oct.).
The TET 20 and TEA 8 Elements for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp. 618-623 (July).
The TUBA Family of Plate Elements for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp. 701-709 (Aug.).

CONFERENCES
International Conference at Chicago, 1893, pp. 4-5 (Jan.).

CONDENSATION
The Effect of Condensation on Hypersonic Laminar Heat Transfer to Cones, N. B. Wood, pp. 520-521 (June).

CONSTANT, HAYNE
An Appreciation, pp. 285-286 (April).

CONTROL—*See* Stability and Control

CORRESPONDENCE
Brants Canadensis, Unconventional Flight, Reply by B. S. Shenstone, p. 970 (Nov.).
von Braun, W., Second Century Papers, p. 611 (July).
Brie, Wg. Cdr. F. A. C., The Alan Marsh Award, p. 684 (Aug.).
Durant, F. C., III. The Second Century Papers, p. 513 (June).
Fedden, Sir Roy, Do Not Cut It too Fine, p. 302 (April). The Second Century Papers, p. 513 (June).
Fraser, A. I., Second Century Agricultural Aviation, p. 422 (May).
Hargrave, J. B., S.I. Units, p. 612 (July).
Langley, M., Historical Aircraft, p. 970 (Nov.), S.I. Units, p. 422 (May).
Lockwood Taylor, J., Biot-Savart Law, p. 684 (Aug.).
McCluskey, E., Report of the 7th Annual Conference of the International Federation of Air Traffic Controllers' Associations, Munich, 22nd-25th April 1966, p. 513 (June).
Mayhew, Y. R., S.I. Units, p. 198 (March).
Owen, Prof. P. R., Second Century Papers, pp. 611 (July).
Parham, Maj. Gen. H. J., Unconventional Flight, Reply by B. S. Shenstone, p. 970 (Nov.).
Phipps, R. C. J., The Second Century Papers, p. 198 (March).
Stewart, O., S.I. Units, p. 684 (Aug.).
Thwaites, B., Second Century Papers, pp. 611-612 (July).
Uwins, C. F., The Bristol Flying School Larkhill, p. 198 (March).
Young, Prof. A. D., Second Century Papers, pp. 611 (July).

COST
Cost of Future Agricultural (Robot) Unit, p. 194 (March).
Engine Cost, pp. 420-421 (May).
Managing Costs for Profit: Part 1—Business Objectives and Strategic Planning, P A. Norman, pp. 423-430 (May).
Managing Costs for Profit: Part 2—Implementing Strategic Plans, Operational Planning and Control, P. A. Norman, pp. 498-508 (June).
Research, Design and Development, pp. 391-393 (May).
Search for a System of Cost Estimation and Control, pp. 137-140 (Feb.).
STOL Aircraft-System Costs, pp. 31-32 (Jan.).

COST-EFFECTIVENESS
Cost-Effectiveness for V/STOL Aircraft, p. 825S (Sept.).

COST ANALYSIS—*See* Management

COX, ROXBEE, DR. H.
pp. 7-8 (Jan.).

CRAGO, W. A.
Marine Safety Aspects of Helicopters (Lecture Summary), p. XXVIII (March).

CREW, AIR CDRE. E. D.
Air Reconnaissance in the Royal Air Force Past, Present and Future, Fifteenth Cayley Memorial Lecture (Lecture Summary), p. LXXXIX (Oct.).

CROSSLEY, T. R. and PORTER, B.
Synthesis of Aircraft Modal Control Systems, pp. 697-701 (Aug.).

CULVER, I. H.
Progress of the Rigid Rotor Concept (Lecture), pp. 187-190S (Feb.).

CURNOW, R. C.
The Importance of Application Satellites to the European Economy (Lecture Summary), p. LXXXII (Sept.).

CURTIES, M. C.
Helicopter All-Weather Operation—Equipment for the Transport Role, pp. 229-236 (March).

DANESHYAR, H. and LALOR, M.
Equilibrium Thermodynamic Properties Behind Strong Shocks in Helium, pp. 155-159 (Feb.).

DAU, K, McLEOD, M. and SURRY, D.
Two Probes for the Measurement of the Complete Velocity Vector in Subsonic Flow, pp. 1066-1068 (Dec.).

DAVIDSON, G.
The Airport and the Aircraft in Relation to Loading Problems (Lecture Summary), p. XCVII (Nov.).

DAVIES, H.
Some Thoughts About the Future of European Aeronautics, 21st Louis Blériot Lecture (Lecture Summary), p. XXVII (March), (Lecture), pp. 385-395 (May).

DAVIES, M. and DAWSON, B.
A Note on the Disadvantages Associated with the Treatment of an Eigenvalue as an Additional Dependent Variable in Differential Eigenvalue Problems, p. 1068 (Dec.).

DAWSON, B.
Rotary Inertia and Shear in Beam Vibration Treated by the Ritz Method, pp. 341-344 (April).

DAWSON, B. and DAVIES, M.
A Note on the Disadvantages Associated with the Treatment of an Eigenvalue as an Additional Dependent Variable in Differential Eigenvalue Problems, p. 1068 (Dec.).

DAWSON, L. G. and HOLLIDAY, J. B.
Looking Ahead in Aeronautics—9: Propulsion, pp. 739-747 (Sept.).

DEFENCE
Defence, Technology and the Western Alliance (Opinion), p. 55 (Jan.).

DESIGN
Aerodynamic Design, D. Küchemann (Lecture Summary), p. XXVIII (March).
Aeroplane Design, p. 300 (April).
Aircraft Design and Systems Development, pp. 474-476 (June).
Design Considerations—STOL Aircraft, p. 13 (Jan.).
F-111 Design Concept (Illus.), p. 35 (Jan.).
The Future Role of Computers with Special Reference to Aerodynamic Design, B. Thwaites (Second Century Paper), pp. 275-284 (April).
Problems of Undercarriage Design for V/STOL Aircraft, S. W. H. Wood (Lecture Summary), p. LXXX (Sept.).
Review of V/STOL Aircraft with Tilt-Propellers and Tilt-Rotors, H. V. Borst, pp. 817-830S (Sept.).
Structural Design and Materials, p. 390 (May).

de WIT, G. J.
Reliability and Utilisation of Flight Simulators, pp. 59-62 (Jan.).

DICKIE, E. J.
Progress in ATC and its Relationship to Airport and Aircraft Development (Lecture Summary), p. XCVIII (Nov.).

DIPROSE, K. V.
Self-adaptive Control Systems (Symposium), pp. 367-372S (April).

DISCUSSIONS—CONTRIBUTORS TO
Alexander, S., p. 954 (Nov.); Armstrong, K. B., pp. 954-955 (Nov.); Mr. Arthur, p. 733 (Aug.); Austin, R. G., p. 1044 (Dec.); Azzouz, D., p. 458 (May); Balmer, R. J., p. 902 (Oct.); Balmford, D. E. H., p. 190 (Feb.); The Hon. James Baring, p. 653 (July); Barnes, A. G., p. 902 (Oct.); Beamont, Wg. Cdr. R. P., p. 40 (Jan.), p. 797-799 (Sept.); Bedford, A. W., p. 41 (Jan.), p. 800 (Sept.); Bedford, L. H., p. 939 (Nov.); Bennett, Prof. J. A. J., p. 53 (Jan.), p. 910 (Oct.); Blanc, Mr. pp. 594-595 (July); Brie, R. A. C., p. 556 (June); Bristow, A. E., p. 963 (Nov.); Brooks, P. W., p. 651 (July); Buzzard, Rear Adm. Sir A., p. 690 (Aug.); Cairns, Gp. Capt. G. C., pp. 800-802 (Sept.); Cannon, Sqn. Ldr. G. T., p. 901 (Oct.); Caplan, H., p. 691 (Aug.), p. 693 (Nov.); Carrow, D. D., p 653 (July); Cavanagh, D., p. 594 (July); Champniss, Wg. Cdr. G. A., p. 902 (Oct.); Cheeseman, I. C., Hargest, T. J., p. 830 (Sept.); Chichester Miles, I. p. 732 (Aug.); Cleaver, A. V., p. 594 (July); Coles, W. W., p. 733 (Aug.); Crookenden, Maj. Gen. N., p. 910 (Oct.); Curnow, Mr., p. 594 (July); Davidson, I., p. 999 (Nov.); Dickie, E. J., p. 652 (July); Dickinson, R. P., p. 953 (Nov.); Dobson, G., pp. 1028, 1044 (Dec.); Dunham, Dr. J., p. 459 (May); Eccles, Mr., p. 998 (Nov.); Eddie, G. C., p. 131 (Feb.); Ellen, Wg. Cdr. R. A. G., p. 910 (Oct.); Ewans, J., p. 52 (Jan.); Falconer, P. O., p. 683 (Aug.); Farrar, Gp. Capt. D. W. B., p. 800 (Sept.); Fisher, I. A., p. 902 (Oct.); Fitzwilliams, O. L. L., p. 190 (Feb.); Fozard, J. W., pp. 731-733 (Aug.); Frost, T., pp. 798-801 (Sept.); Galton, G. N., p. 733 (Aug.); Gardiner, P. J. E., p. 964 (Nov.); Gill, Sqn. Ldr., p. 42 (Jan.); Gillard, P., p. 594 (July); Gray, I. G., p. 42 (Jan.); Hanson, J., p. 953, 955 (Nov.); Hargest, T. J. and Cheeseman, I. C., p. 830 (Sept.); Harrison, J. M., p. 186 (Feb.); Hearne, P. A., pp. 997, 999 (Nov.); Hildred, Sir William, p. 690 (Aug.); Hilton, W. F., p. 940 (Nov.); Hislop, Dr. G. S., p. 683 (Aug.), p. 854

(Oct.); Hooper, R. S., p. 799 (Sept.); Howard, Mr., pp. 900-901 (Oct.); Hubbie, P. E., p. 458 (May); Irving, F. G., p. 652-3 (July); Jagger, D. H., p. 732 (Aug.), p. 901 (Oct.); Jewell, Wg. Cdr. J., p. 41 (Jan.); Johnson, C. L., p. 997 (Nov.); Jones, L. A., p. 732 (Aug.); Jones, N., pp. 653-654 (July); Kean, A. W. G., p. 692 (Aug.); Kelly, Dr. J. C., p. 459 (May); Kennedy, Mr., p. 594 (July); Kerr, T. H., p. 53 (Jan.); King, Maj. Gen. F. D., p. 910 (Oct.); King Hele, D. G., p. 939 (Nov.); Kirby, Cdr., p. 801 (Sept.), p. 902 (Oct.); Kite, R. J., p. 955 (Nov.); Lester, A. M., p. 963 (Nov.); Lighthill, Prof. M. J., p. 939 (Nov.); Lilley, Prof. G. M. p. 940 (Nov.); Lock, Dr. R. C., p. 458 (May); Loudon, Sqn. Ldr. K., p. 954 (Nov.); Low, F. J., p. 555 (June); Macdonald, Wg. Cdr. I. N. M., p. 801 (Sept.); Mendela, D. K., p. 733 (Aug.), Miles, Flt. Lt, p. 854 (Oct.); Millward, Sqn. Ldr., p. 548 (June); Morgan, M. B., pp. 998-999 (Nov.); Morrell, J., p. 854 (Oct.); Mould, Sqn. Ldr. H. J., p. 963 (Nov.); Murphy, Prof. A. J., p. 954 (Nov.); Ntim, B. A., p. 459 (May); Oliver, S. B., p. 42 (Jan.); Pardoe, G. K. C., p. 595 (July); Parkin, L. W., p. 594 (July); Pearson, E. B., p. 594 (July); Podger, Flt. Lt. C. J., p. 41 (Jan.); Purse, Lt. M. F. L., p. 901 (Oct.); Rigby, H. S. C., pp. 651, 653, 654 (July); Rogers, H. C., p. 799 (Sept.); Rowe, N. E., p. 683 (Aug.); Ruscoe-Pond, M. G., p. 801 (Sept.); Russell, J. G., p. 1028 (Dec.); Rustin, Sqn. Ldr. C. C., p. 41 (Jan.); Sadler, A., p. 998 (Nov.); Sandifer, R. H., p. 953 (Nov.); Sarnecki, Dr. A. J., p. 595 (July); Sear, W. H., p. 236 (March); Semple, E., p. 107 (Jan.); Shapiro, J. S., p. 829 (Sept.); Shrubb, K. F., pp. 901-902 (Oct.); Smith, H. E., p. 652 (July); Squires, D., p. 107 (Jan.); Staines, R. A., p. 595 (July); Stallibrass, G. W., pp. 651-652 (July); Stephens, W. H., p. 595 (July); Stratford, A. H., p. 964 (Nov.); Stratton, R. B., p. 1027 (Dec.); Sturgeon, J. R., p. 955 (Nov.); Szlenkier, T. K., p. 53 (Jan.); Thorne, Gp. Capt. P. D., p. 547 (June); Trubshaw, B., p. 799 (Sept.); Tuffen, H., p. 731 (Aug.); Underwood, G. W., p. 798 (Sept.), pp. 954-955 (Nov.); Wallace, Mr., p. 595 (July); Warbrick, C., p. 691 (Aug.); Ward, B. P., p. 999 (Nov.); Watts, Gp. Capt., p. 800 (Sept.); Webb, Sqn. Ldr. P. T. G., p. 954 (Nov.); Whitely, Sqn. Ldr. M. C., p.. 854 (Oct.); Wilberforce, Lord, p. 691 (Aug.); Wilkinson, K. G., p 33 (Jan.), pp. 653-654 (July); Williams, J. E. D., p. 963 (Nov.); Wills, P. A., pp. 650, 653 (July); Willshire, A. J., pp. 731, 733 (Aug.); Wilson, M., p. 41 (Jan.); Wingate, J. E., p. 955 (Nov.); Winny, Dr. H. F., p. 910 (Oct.); Wolfe, Dr. M. O. W., p. 953 (Nov.); Wotton, A. J., p. 964 (Nov.); Wray, M., p. 41 (Jan.); Wren, E. A. C., p. 799 (Sept.); Young, Prof. A. D., p. 459 (May); Zala, E. D., p. 42 (Jan.); Zala, Flt. Lt., p. 548 (June).

DIXON, L. C. W.
Further Comments on Pontryagins Maximum Principle Applied to the Profile of a Beam, pp. 518-519 (June).

DRAG
Aircraft drag, p. 822-823S (Sept.).
Prospects of Further Technical Advances, p. 389 (May).
Rotorcraft Drag, pp. 178-179S (Feb.).
A Simplified Approach to Free-Surface Ware Drag Theory, P. R. Payne, pp. 239-242 (March).
Some Remarks on Vortex Drag and its Spanwise Distribution in Incompressible Flow, H. C. Garner, pp. 623-625 (July).
STOL Aircraft Drag Considerations, p. 14 (Jan.).
Subsonic Aircraft Drag: An Appreciation of Present Standards, A. B. Haines, pp. 253-266S (March).

DUCAMUS, P. M.
ESRO II Satellite On-Board Equipment (Symposium), pp. 103-108S (Jan.).

DUNNE, P. C.
Complete Polynomial Displacement Fields for Finite Element Method, pp. 245-246 (March).
Reply to, "Comments on Complete Polynomial Displacement Fields for Finite Element Method, P. C. Dunne, March Journal 1968" by B. M. Irons, J. Ergatoudis and O. C. Zienkiewicz, pp. 710-711 (Aug.).

DURANT, F. C. III
Correspondence, the Second Century Papers, p. 513 (June).

DYNAMICS
Progress of the Rigid Rotor Concept, I. H. Culver, pp. 187-190S (Feb.).
Roll Dynamics of a Spinning Axi-Symmetric Satellite Using the WKBJ Method, V. J. Modi and J. E. Neilson, pp. 807-810 (Sept.).
Synthesis of Aircraft Modal Control Systems, T. R. Crossley and B. Porter, pp. 697-701 (Aug.).
Wing and Propeller Dynamic Problems, pp. 823-824S (Sept.).

ECONOMICS
Economic Constraints—The Future Role of Computers, p. 283 (April).
Economic Development of Air Cargo, pp. 958-959 (Nov.).

EDSON, DR. E. F.
Medical Aspects of Safety (Lecture Summary), p. XVIII (Feb.).

EDUCATION
Diversity Trends in the Universities, p. 774 (Sept.).

EDWARDS, SIR GEORGE
The Impact of Speed on Transport (Lecture), pp. 603-610 (July).

ELDO
The Activities of ELDO, K. Iserland, pp. 574-583 (July).
ELDO and European Space in the Shadow of Apollo, P. Ledger, pp. XLIV-XLV (May).
The ELDO-PAS Programme and its Management, J. Nouaille (Lecture Summary), p. VII (Jan.), (Lecture), pp. 584-587 (July).
Problems of Guidance, in Particular—Inertial Guidance, R. B. Mattin, pp. 578-595 (July).

ELECTRONICS
Avionics—Towards the Twenty-First Century, P. A. Hearne (Second Century Paper) pp. 915-924 (Nov.).

ELLIOTT, J. S. and SCHAEFER, DR. G. W.
Aerodynamics and Flapping Flight (Lecture Summary), p. XXXVI (April).

ENGINEERS, TECHNOLOGISTS AND SCIENTISTS IN THE NATIONAL ECONOMY
pp. 509-511 (June).

ENGINES—*See* also Propulsion
Bentley Rotary B.R.2 (Illus.), p. 289 (April).
Engine Development Under the Ministry of Aviation, P. Lloyd (Lecture), pp. 132-140 (Feb.).
Engines and Nacelles, p. 300 (April).
Fifty Years of Engineering Learning, F. R. Banks (Lecture), pp. 209-228 (March).
Small Aero-Engines—Past, Present and Future, E. S. Moult, pp. 409-421 (May), Corrections, E. S. Moult, p. 526 (June).

ENGLAND, K. J.
A Hydraulic Transmission System for Powered Wind-Tunnel Models, pp. 460-466S (May).

ERGATOUDIS, J. and ZIENKIEWICZ, O. C.
Comment on Complete Polynomial Displacement Fields for Finite Element Method by P. C. Dunne, March Journal 1968, p. 710 (Aug.).

ESRO
ESRO II Satellite On-Board Equipment, P. M. Ducamus, pp. 103-108S (Jan.).
Project Management and Technical Progress of the ESRO II Satellite Project, C. R. Hume, pp. 91-103S (Jan.).

EUROPE
The Activities of ELDO, K. Iserland, pp. 574-583 (July).
Commercial Application of Satellites for Europe (Five Papers), (Lecture Summaries), p. LXXXII (Sept.).
The ELDO-PAS Programme and its Management, J. Nouaille, pp. 584-587 (July).
A Policy for Europe, pp. 207-208 (March).
Some Thoughts About the Future of European Aeronautics, H. Davies (Lecture Summary), p. XXVII-XXVIII (March), (Lecture) pp. 385-395 (May).

SIR RICHARD FAIREY MEMORIAL LECTURE, NINTH
The Boeing SST—Large Transport Aeroplanes—Opportunity and Challenge (London Airport), Maynard Pennell, pp. 693-696 (Aug.).

FARLEY, J. F.
Piloting Aspects of Poor Weather Jet V/STOL (Lecture Summary), p. XVIII (Feb.), (Lecture), pp. 893-902S (Oct.).

FEDDEN, SIR ROY
Correspondence. Do Not Cut it Too Fine, p. 302 (April), The Second Century Papers, p. 513 (June.)

FIELDING, J.
Opinion—Advanced Machining Technology, p. 54 (Jan.).

FINITE ELEMENT METHODS—*See* Structures

FLEMMING, M.
Structural Aspects of te Do 31 Jet Lift VTOL Aircraft (Lecture), pp. 719-734S (Aug.).

FLEMMING, N. C.
Functional Requirements for Research/Work Submersibles (Lecture), pp. 123-131 (Feb.).

FLIGHT SIMULATORS—*See* Simulators

FLIGHT TESTING
A Résumé of the F-111 Flight Test Programme, Val E. Prahl (Lecture), pp. 34-42 (Jan.).

FLOW
Effects of an Initial Gap on the Turbulent Jet Flow Over a Curved Wall, S. C. Paranjpe and K. Sridhar, pp. 63-67 (Jan.).
Flow Separation and Stall Characteristics of Plane, Constant-Section Wings in Subcritical Flow, P. D. Chappell, pp. 82-90S (Jan.).
Flow Testing of the Exhaust Nozzle for the SST, pp. 496-497 (June).
Flow Visualisation Experiments, pp. 79-80S (Jan.).
A Standard Choked Nozzle for Absolute Calibration of Air Flowmeters, D. W. Sparkes, pp. 335-338 (April).
Sudden Area Enlargement Pressure Recovery with Inflow Distortion, R. A. Tyler and R. G. Williamson, pp. 243-244 (March).

FLUID DYNAMICS
The Mathematical Modelling of Fluid Dynamics of the 1960's, pp. 277-278 (April).
Present Applications of Computers to Fluid Dynamics, pp. 278-289 (April).
Short-term Developments in Fluid-Dynamics Computing, p. 280 (April).

FLYING QUALITIES
Flying Qualities—SST, p. 120 (Feb.).

FOLEY, M. A.
Operations Research in Aer Lingus, pp. 596-602 (July).

FOREMAN, P. F.
On Fitting Man into the Control System of Certain Guided Weapons (Symposium), pp. 361-367S (April).

FRASER, A. I.
Correspondence, Second Century Agricultural Aviation, p. 422 (May).

FRIED, I. and ARGYRIS, J. H.
The LUMINA Element for the Matrix Displacement Method, pp. 514-517 (June).

FRIED, I., SCHARPF, D. W. and ARGYRIS, J. H.
The HERMES 8 Element for the Matrix Displacement Method, pp. 613-617 (July).
The TET 20 and TEA 8 Elements for the Matrix Displacement Method, pp. 618-623 (July).
The TUBA Family of Plate Elements for the Matrix Displacement Method, pp. 701-709 (Aug.).

FUEL
The World Fuel and Energy Supplies, p. 737 (Sept.).

GARNER, H. C.
Some Remarks on Vortex Drag and its Spanwise Distribution in Incompressible Flow, pp. 623-625 (July).

GEARED SYSTEMS
Coupled Vibration of Geared Systems, S. Mahalingam, pp. 522-526 (June).

GILCHRIST, A., LEE, C. K. and NEILSON, J. H.
A Theory for the Side Force Produced in Two-dimensional Nozzles by Secondary Gas Injection, pp. 267-274S (March).
Theoretical Aspects of Thrust Vector Control by Secondary Gas Injection in Rocket Nozzles, pp. 171-177S (Feb.).
Thrust Vector Control by Secondary Gas Injection in Two-Dimensional Nozzles, pp. 77-81S (Jan.).

GILL, SQN. LDR. T. E.
Thoughts on Flight Instrumentation Presentations (Lecture), pp. 540-548S (June).

GODDARD, AIR MARSHAL SIR VICTOR
Per Ardua-Peradventure. A Contemporary Review of Innovations During the First Fifty Years of the Royal Air Force (Lecture Summary), p. XXXVI (April), (Lecture), pp. 855-862 (Oct.).

GOODHART, CAPT. H. C. N.
The Effect of Air Traffic Control Policy on the Growth of Aviation (Lecture), pp. 647-654S (July).

GUIDED FLIGHT—*See also* **Astronautics**
Problems of Guidance, in Particular—Inertial Guidance, R. Mattin (Lecture Summary), p. VII (Jan.), (Lecture), pp. 587-595 (July).
Simulation and Control of Guided Weapons, I. N. Cartmell, R. W. Williams, P. F. Foreman and K. V. Diprose, pp. 356-372S (April).
The Calculation of Aerodynamic Forces and Pressures on Wings Entering Step Gusts, C. G. B. Mitchell, pp. 535-539 (June).

HAFNER, R.
Looking Ahead in Aeronautics—13, The Future of Rotorcraft, pp. 1011-1018 (Dec.).

HAINES, A. B.
Subsonic Aircraft Drag: An Appreciation of Present Standards (Lecture) pp. 253-266S (March).

HALFORD MEMORIAL LECTURE, NINTH
Engine Development Under the Ministry of Aviation. Peter Lloyd, (Hatfield), pp. 132-140 (Feb.).

HANDLEY PAGE MEMORIAL LECTURE, SIXTH
The Influence of Aerospace on Future Transport Systems. Prof. K. Legg, pp. 771-792 (Sept.).

HARGRAVE, J. B.
Correspondence on S.I. Units, p. 612 (July).

HAWKINS, W. M. and BAILEY, R. A.
The Lockheed L-1011 Tri-Jet Transport Programme (Lecture Summary), p. LXXXI (Sept.).

HEARNE, P. A.
Looking Ahead in Aeronautics—12, Avionics—Towards the Twenty-First Century, pp. 915-924 (Nov.).

HEAT TRANSFER
The Effect of Condensation on Hypersonic Laminar Heat Transfer to Cones, N. B. Wood, pp. 520-521 (June).
The Heat Transfer Performance of Porous Gas Turbine Blades, F. J. Bayley and A. B. Turner, pp. 1087-1094 (Dec.).

HELICOPTERS—*See* **Rotorcraft**

HENDERSON, J. E.
Opinion, Defence Technology and the Western Alliance, p. 55 (Jan.).

HILDRED, SIR WILLIAM
The First Beaumont Memorial Lecture, pp. 396-408 (May).

HILL, G. S.
The Economics of Airport Operation as Affected by Current Transport Aircraft Design Trends (Lecture Summary), p. XCVII (Nov.).

HISCOCKS, R. D.
STOL Aircraft—A Perspective 23rd British Commonwealth Lecture, pp. 11-33 (Jan.).

HISTORY
The Bristol Flying School, Larkhill, C. F. Unwins (Correspondence), p. 198 (March).
Early Days of British Aeronautical Research, J. L. Nayler, pp. 1045-1054 (Dec.).
Fifty Years of Engineering Learning, F. R. Banks, pp. 209-228 (March).
Flight Instruments—Brief Historical Review, pp. 540-543 (June).
Historical Aircraft, M. Langley (Correspondence), p. 970 (Nov.).
History of Development of Air Cargo, pp. 957-958 (Nov.).
A History of Martinsyde Aircraft, J. M. Bruce (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 755-770 (Sept.).
Per Ardua—Peradventure. A Contemporary Review of the First Fifty Years of the Royal Air Force, Sir Victor Goddard (Lecture Summary), p. XXXVI (April), (Lecture) pp. 855-862 (Oct.).
Schneider Trophy Flying—Reminiscences, Gp. Capt. L. S. Snaith (Lecture Summary), p. XCVIII (Nov.).
STOL Aircraft—Historical Background, pp. 12-13 (Jan.).
Veteran Aircraft, L. Hunt (Lecture Summary), p. LXXXI (Sept.).

HOLLIDAY, J. B. and DAWSON, L. G.
Looking Ahead in Aeronautics—9: Propulsion, pp. 739-747 (Sept.).

HOOVER, I. H.
A System Solution to the Aircraft Noise Problem (Lecture), pp. 299-301 (April).

HOVERCRAFT
Air Cushion Vehicles for Agricultural Work, p. 195 (March).
Forward Speed Effects on Annular Jet Cushions, A. J. Alexander, pp. 436-441 (May).
HD2 NPL Hovercraft (Illus.), p. 1017 (Dec.).
Hovercraft, R. Stanton-Jones (Second Century Paper), pp. 911-914 (Nov.).
A Review of Hovercraft Research in Great Britain, A. Silverleaf (Lecture Summary), p. XVIII (Feb.), (Lecture), pp. 1019-1028 (Dec.).
SRN 4 (Illus.), p. 785 (Sept.).

HUME, C. R.
Project Management and Technical Progress of the ESI ,, Satellite Project (Symposium), pp. 91-103S (Jan.).

HUMPHERSON, J. and SHARMAN, P. W.
An Experimental and Theoretical Investigation of Simply-Supported Thin Plates Subjected to Lateral Load and Uniaxial Compression, pp. 431-436 (May).

HUNT, L.
Veteran Aircraft (Lecture Summary), p. LXXXI-LXXXII (Sept.).

HYPERSONIC FLOW
The Effect of Condensation on Hypersonic Laminar Heat Transfer to Cones, N. B. Wood, pp. 520-521 (June).

INSTRUMENTATION
Instrument Operation—City Heliport Operations, pp. 549-550S (June).
Thoughts on Flight Instrument Presentations, T. E. Gill, pp. 540-548S (June).

IRONS, B. M.
Comment on Complete Polynomial Displacement Fields for Finite Element Method by P. C. Dunne, March Journal 1968, pp. 709-710 (Aug.).

ISERLAND, K.
The Activities of ELDO (Symposium), pp. 574-583 (July).

IYENGAR, K. T. SUNDARA RAJA and SRINIVASAN, R. S.
Reply to Clamped Skew Plate under Uniform Normal Loading, Prof. J. B. Kennedy, p. 340 (April).

JAMES, THURSTAN
Opinion on London's Airports,Trouble Ahead, pp. 237-238 (March).

JOAN BRADBROOK, MBE
pp. XLVII-L (June).

JOFFRE, M.
International Co-operation in the Field of Airworthiness Requirements for Helicopters (Lecture Summary), p. XC (Oct.).

JOHNSON, D. H. N.
The Legality of Modern Forms of Aerial Warfare (Lecture), pp. 685-692 (Aug.).

JONES, G. MELVILL
Looking Ahead in Aeronautics—10. Man-Machine Integration: A Long Term Look, pp. 831-846 (Oct.).

JOYCE, R. J. V.
Recent Developments in ULV Application (Lecture Summary), p. XVIII (Feb.).

KENNEDY, BRIG. C. D. S.
Helicopter Armament for Land Operations (Lecture), pp. 903-910S (Oct.).

KENNEDY, PROF. J. B.
Clamped Skew Plate under Uniform Normal Loading, pp. 338-339 (April).

KILLIP, R. E. L.
Airport Problems in Flight Operation (Lecture Summary), p. XCVII (Nov.)

KINETIC HEATING
Kinetic Heating of Aircraft Structures, J. Taylor (Lecture Summary), p. VIII (Jan.), (Lecture) pp. 941-955 (Nov.).
Kinetic Heating and Cooling, p. 869-870 (Oct.).

KITES
p. 5 (Jan.).

KNIGHT, MAJOR W. J. "PETE"
Increased Piloting Tasks and Performance of X-15A-2 in Hypersonic Flight (Lecture) pp. 793-802 (Sept.).

KÜCHEMANN, DR. D.
Aerodynamic Design, 4th Reynolds Prandtl Lecture (Lecture Summary), p. XXVIII (March).
Looking Ahead in Aeronautics—I: An Aerodynamicist's Prospect of the Second Century, pp. 109-114 (Feb.).

LALOR, M. and DANESHYAR, H.
Equilibrium Thermodynamic Properties behind Strong Shocks in Helium, pp. 155-159 (Feb.).

LANCHESTER, F. W.
pp. 6-7 (Jan.).

LANCHESTER MEMORIAL LECTURE, ELEVENTH
The Dynamics of Low-Thrust Spacecraft Manoeuvres. E. G. C. Burt (Lecture Summary), p. XXXVI (April), (Lecture) pp. 925-940 (Nov.).

LANGLEY, M.
Correspondence on Historical Aircraft, p. 970 (Nov.).
Correspondence on S.I. Units, p. 422 (May).
The Five Point Loading Shear Stiffness Test, p. 422 (May).

LAWSON, K. S.
The Influence of Airport Facilities and Environment on Airport Design and Operating Economics (Lecture Summary), p. XCVIII (Nov.).

LECTURES DISCUSSIONS AND SYMPOSIA (for list of contributors to Discussions—*See* Discussions)

Main Society
See also Barnwell, Blériot, British Commonwealth, Fairey, Halford, Handley Page, Lanchester, Mitchell, Royce, Tizard, Wilbur and Orville Wright.
Air Reconnaissance in the Royal Air Force, Past, Present and Future, Air Cdre. E. D. Crew, 15th Cayley Memorial Lecture (Lecture Summary) (Brough), p. LXXXIX (Oct.).

The Airworthiness of Supersonic Aircraft. H. C. Black (Lecture Summary) (Coventry), p. VIII (Jan.), (Lecture), pp. 115-122 (Feb.).
Digital Control of Aircraft Powerplants, W. G. E. Lewis and G. E. Munns (Lecture Summary), p. XXVII (March), (Lecture) pp. 989-999S (Nov.).
Early Days of British Aeronautical Research, J. Nayler (Lecture Summary) (Cambridge), p. XVIII (March), (Lecture), pp. 1045-1054 (Dec.).
Operational Aspects of the Supersonic Transport, C. Abell (Lecture Summary) (Bristol), p. XVIII (Feb.).

Agricultural Aviation Group
Symposium, Operation and Safety Aspects of Agricultural Aviation. R. J. V. Joyce, Dr. E. F. Edson and E. J. Martin (Lecture Summaries), p. XVIII (Feb.).

Air Law Group
In Defence of Private Business and Aerial Work Flying, P. Martin (Lecture Summary), p. LXXX (Sept.).
The First Beaumont Memorial Award, Sir William Hildred, pp. 396-408 (May).
The Legality of Modern Forms of Aerial Warfare, D. H. N. Johnson, pp. 685-692 (Aug.).
The Outer Space Treaties, Sir Francis Vallat (Lecture Summary), p. LXXXIX (Oct.).
Urgent Reforms in Civil Aviation Legislation, H. C. Brilliant (Lecture Summary), p. XXXVI (April).

Air Transport Group
Symposium on Airports and Transport Aircraft: Inter-Relations and Inter-Face Problems. J. B. Block, G. S. Hill, D. R. Blundell, R. E. L. Killip, G. Davidson, D. R. Newman, K. S. Lawson, E. J. Dickie (Lecture Summaries), pp. XCVII-XCVIII (Nov.).

Astronautics and Guided Flight Section
Functional Requirements for Research/Work Submersibles. N. C. Flemming, pp. 123-131 (Feb.).
Symposium, Commercial Application of Satellites for Europe. P. J. Colburn, D. M. Squires and M. O'Hagan; H. G. Leysieffer; R. W. Porter; G. K. C. Pardoe and R. C. Curnow (Lecture Summaries), p LXXXII (Sept.).
Symposium on ELDO, J. Nouaille, R. Mattin (Lecture Summaries), (Symposium), pp. 584-587 (July).
Symposium, A Progress Report of the ESRO II Programme, C. R. Hume and P. M. Ducamus, pp. 103-108S (Jan.).
Symposium, Simulation and Control of Guided Weapons, I. N. Cartmell, R. W. Williams, P. F. Foreman and K. V. Diprose, pp. 356-372S (April).

Branches Lectures
See—Barnwell (Bristol), Fairey (London Airport), Halford (Hatfield), Mitchell (Southampton), Royce (Derby), Tizard (Boscombe Down).
The Airworthiness of Supersonic Aircraft. H. C. Black (Lecture Summary) (Coventry), p. VIII (Jan.), (Lecture), pp. 115-122 (Feb.).
Inaugural Address given to the Dublin Branch. The Impact of Speed on Transport, Sir George Edwards (Dublin), pp. 603-610 (July)
Early Days of British Aeronautical Research, J. L. Nayler (Lecture Summary) (Cambridge), p. XXVIII (March), (Lecture), pp. 1045-1054 (Dec.).
The Lockheed L-1011 Tri-Jet Transport Programme, W. M. Hawkins and R. A. Bailey (Lecture Summary) (Southend), p. LXXXI (Sept.).
Structural Testing, G. W. Underwood (Gloucester and Cheltenham), pp. 863-872 (Oct.).
Thoughts on Flight Instrumentation Presentations, Sqn. Ldr. T. E. Gill (Weybridge), pp. 540-548S (June).

Historical Group
Air Photography, Cyril Peckham (Lecture Summary), p. VII (Jan.).
A History of Martinsyde Aircraft. J. M. Bruce (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 755-770 (Sept.).
Per Ardua-Peradventure. A Contemporary Review of Innovations durduring the First Fifty Years of the Royal Air Force, Air Marshal Sir Victor Goddard (Lecture Summary), p. XXXVI (April), (Lecture), pp. 855-862 (Oct.).
Schneider Trophy Flying—Reminiscences, Gp. Capt. L. S. Snaith (Lecture Summary), p. XCVIII (Nov.).
Veteran Aircraft, L. Hunt (Lecture Summary), pp. LXXXI-LXXXII (Sept.).

Man Powered Aircraft Group
Aerodynamics of Flapping Flight, J. S. Elliott and Dr. G. W. Schaefer (Lecture Summary), pp. XXXVI (April).

Management Studies Group
Operations Research in Aer Lingus, M. A. Foley, pp. 596-602 (July).

Rotorcraft Section
The Canadair CL-84 Tilt-Wing V/STOL Programme, F. C. Phillips (Lecture Summary), p. XXVIII (March).
Experiences of City Heliport Operations, R. B. Meyersburg, pp. 549-555S (June).
The Future City Centre Heliport, N. J. Payne, pp. 555-556S (June).
Helicopter All-Weather Operation—Equipment for the Transport Role, M. C. Curties, pp. 229-236 (March).
Helicopter Armament for Land Operations, Brig. C. D. S. Kennedy, pp. 903-910S (Oct.).
International Co-operation in the Field of Airworthiness Reqiurements for Helicopters, M. Joffre (Lecture Summary), p. XC (Oct.)
Marine Safety Aspects of Helicopters, W. A. Crago (Lecture Summary), p. XXVIII (March).
Possibilities of Compound Rotorcraft—Status 1968, Dr. R. M. Carlson (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 1029-1044 (Dec.).
The Principles and Objectives of Cost-Effectiveness Analysis, Prof. A. Stratton, pp. 43-53 (Jan.).
Progress of the Rigid Rotor Concept, I. H. Culver, pp. 187-190S (Feb.).
A Review of Hovercraft Research in Great Britain, A. Silverleaf (Lecture Summary), p. XVIII (Feb.), (Lecture), pp. 1019-1028 (Dec.).
Review of V/STOL Aircraft With Tilt-Propellers and Tilt-Rotors, H. V. Borst, pp. 817-830S (Sept.).
Selected Aspects of the Aerodynamics of Rotorcraft. A. E. Clarke and Dr. A. R. S. Bramwell, pp. 178-186S (Feb).

Test Pilots Group
Piloting Aspects of Poor Weather Jet V/STOL, J. F. Farley (Lecture Summary), p. XVIII (Feb.), (Lecture), pp. 893-902S (Oct.).
Increased Piloting Tasks and Performance of X-15A-2 in Hypersonic Flight, Major W. J. Knight, pp. 793-802 (Sept.).
A Résumé of the F-111 Flight Test Programme, Val E. Prahl, pp. 34-42 (Jan.).
Thoughts on Flight Instrumentation Presentations, Sqn. Ldr. T. E. Gill, pp. 540-548S (June).

Specialist Lectures
The Effect of Air Traffic Control Policy on the Growth of Aviation, Capt. H. C. N. Goodhart, pp. 647-654S (July).
Problems of Undercarriage Design for V/STOL Aircraft, S. W. H. Wood (Lecture Summary), p. LXXX (Sept.).
Subsonic Aircraft Drag: An Appreciation of Present Standards, A. B. Haines, pp. 253-266S (March).
Structural Aspects of the Do 31 Jet-Lift VTOL Aircraft, M. Flemming, pp. 719-734S (Aug.).
Turbulent Boundary Layers, P. Bradshaw, pp. 451-459S (May).

LEDERER, J.
The Jumbo Jet and Public Safety (Lecture), pp. 291-298 (April).

LEE, C. K., NEILSON, J. H. and GILCHRIST, A.
Theoretical Aspects of Thrust Vector Control by Secondary Gas Injection in Rocket Nozzles, pp. 171-177S (Feb.).
A Theory for the Side Force produced in Two-Dimensional Nozzles by Secondary Gas Injection, pp. 267-274S (March).
Thrust Vector Control by Secondary Gas Injection in Two-Dimensional Nozzles, pp. 77-81S (Jan.).

LEGG, PROF. K.
The Influence of Aerospace on Future Transport Systems, Sixth Handley Page Memorial Lecture, pp. 771-792 (Sept.).
Memorandum to the Committee of Inquiry into Civil Air Transport, pp. 965-969 (Nov.).

LEGRAND, L. F. G.
The Next Generation of French Helicopters. Ninth Cierva Memorial Lecture (Lecture Summary), p. LXXXI (Sept.).

LEWIS, W. G. E. and MUNNS, G. E.
Digital Control of Aircraft Powerplants (Lecture Summary), p. XXVII (March), (Lecture), pp. 989-999S (Nov.).

LEYSIEFFER, H. G.
Aeronautical Satellite Systems for Aircraft Control and Communications in the European Environment (Lecture Summary), p. LXXXII (Sept.).

LIFT
High Lift Devices, p. 14-17 (Jan.).
High Lift for Take-Off and Landing, pp. 389-390 (May).

LLOYD, P.
Engine Development Under the MoA (Lecture), pp. 132-140 (Feb.).
Hayne Constant—An Appreciation, pp. 285-286 (April).

LOCKWOOD-TAYLOR, J.
Correspondence on Biot-Savart Law, p. 684 (Aug.).

LOFTIN, L. K. JNR.
Research Relating to Long-Range Supersonic Cruising Aircraft (Lecture), pp. 481-489 (June).

McCLUSKEY, E.
Correspondence, Report on the 7th Annual Conference of the International Federation of Air Traffic Controllers' Associations, Munich 22nd-25th April 1968, p. 513 (June).

McLEOD, M., SURRY, D. and DAU, K.
Two Probes for the Measurement of the Complete Velocity Vector in Subsonic Flow, pp. 1066-1068 (Dec.).

MACDONALD, I. S.
The SST—Economic Tightrope for the Airlines (Lecture Summary), p. 122 (Feb.).

MACHINE TECHNOLOGY
Advanced Machining Technology (Opinion), p. 54 (Jan.).

MAIR, W. A.
Blockage Corrections for Blunt-Based Bodies of Revolution, p. 1058 (Dec.).

MAHALINGAM, S.
Coupled Vibration of Geared Systems, pp. 522-526 (June).

MANAGEMENT
The ELDO-PAS Programme and Its Management, J. Nouaille, pp. 584-587 (July).
Managing Costs for Profit: Part 1—Business Objectives and Strategic Planning, P. A. Norman, pp. 423-430 (May).
Managing Costs for Profit: Part 2—Implementing Strategic Plans, Operational Planning and Control, P. A. Norman, pp. 498-506 (June).
The Principles and Objectives of Cost-Effectiveness Analysis (Lecture), Prof. A. Stratton, pp. 43-53 (Jan.).
Problems of Technical Management, pp. 576-579 (July).
Project Management and Technical Progress of the ESRO II Satellite Project, C. R. Hume, pp. 91-103S (Jan.).

MAN-MACHINE INTEGRATION
Man-Machine Integration: A Long Term Look, G. Melvill Jones (Second Century Paper), pp. 831-846 (Oct.).

MAN POWERED AIRCRAFT
Aerodynamics of Flapping Flight, J. S. Elliott and G. W. Schaefer (Lecture Summary), p. XXXVI (April).
Man-Powered Aircraft, p. 658-661 (Aug.).

MARTIN, E. J.
Review of Aircraft Accidents in Agricultural Operations (Lecture Summary), p. XVIII (Feb.).

MARTIN, P.
In Defence of Private Business and Aerial Work Flying (Lecture Summary), p. LXXX (Sept.).

MATERIALS
Structural Materials, pp. 559-561 (July).

MATHEMATICS
Centre for the Advancement of Mathematical Education in Technology, p. LVI (June).
The Numerical Education of Curvilinear Integrals and Areas, T. R. F. Nonweiler, pp. 887-888 (Oct.).

MATRIX METHODS—*See* also **Structures**
Discrete-Element Methods for Stability Analysis of Complex Structures, J. S. Przemieniecki, pp. 1077-1086 (Dec.).
The HERMES 8 Element for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp. 613-617 (July).
The LUMINA Element for the Matrix Displacement Method, J. H. Argyris, pp. 514-517 (June), Correction, p. 617 (July).
A Sequel to Technical Note 14 on the TUBA Family of Plate Elements, J. H. Argyris and K. E. Buck, pp 977-983 (Nov.).
The SHEBA Family of Shell Elements for the Matrix Displacement Method, J. H. Argyris and D. W. Scharpf, pp. 873-883 (Oct.).
The TET 20 and TEA 8 Elements for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp. 618-623 (July).
The TUBA Family of Plate Elements for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp. 701-709 (Aug.).

MATTIN, R.
Problems of Guidance, in Particular Inertial Guidance (Lecture Summary), p. VII (Jan.), (Symposium), pp. 584-595 (July).

MAYHEW, Y. R.
Correspondence on S.I. Units, p. 198 (March).

MEYERSBURG, R. B.
Experiences of City Heliport Operations (Lecture), pp. 549-555S (June).

MILWARD, SIR ANTHONY
The Development and Future of Air Cargo. 24th British Commonwealth Lecture (Lecture Summary), p. LXXX (Sept.), (Lecture), pp. 957-964 (Nov.).

MITCHELL MEMORIAL LECTURE, FIFTEENTH
Kinetic Heating of Aircraft Structures, J. Taylor (Southampton) (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 941-955 (Nov.).

MITCHELL, C. G. B.
The Calculation of Aerodynamic Forces and Pressures on Wings Entering Step Gusts, pp. 535-539S (June).
Calculation of the Response of a Fighter Aircraft to Turbulent Air and a Comparison with Flight Measurements, pp. 303-309 (April).

MODELS
A Hydraulic Transmission System for Powered Wind-Tunnel Models, K. J. England, pp. 460-466S (May).

MODI, V. J. and NEILSON, J. E.
Roll Dynamics of a Spinning Axi-Symmetric Satellite in an Elliptic Orbit, pp. 1061-1065 (Dec.).
Roll Dynamics of a Spinning Axi-Symmetric Satellite Using the WKBJ Method, pp. 807-810 (Sept.).

MOTIVATION
The Motivation and Aims of Aviation, pp. 113-114 (Feb.).

MOULT, DR. E. S.
Small Aero—Engines, Past, Present and Future. 12th Sir Henry Royce Memorial Lecture, pp. 409-421 (May).

MOLYNEUX, W. G.
Looking Ahead in Aeronautics—6: The World of the Structural Engineer, pp. 557-566 (July).

MUNNS, G. E. and LEWIS, W. G. E.
Digital Control of Aircraft Powerplants (Lecture Summary), p. XXVII (March), (Lecture), pp. 989-999S (Nov.).

MURALIDHAR, D., and RAJARATNAM, N.
Yaw Probe used as Preston Tube, pp. 1059-1060 (Dec.).

MUSEUM
The Royal Air Force Museum, J. Tanner, pp. 287-290 (April).

NATIONAL ECONOMY
Engineers, Technologists and Scientists in the National Economy. Report of a Joint Committee on Professional Manpower, pp. 509-511 (June).

NAVIGATION
Navigation and Communications for Submersibles, pp. 125-126 (Feb.).
En Route Navigation, pp. 233-234 (March).
Present Trends in Inertial Navigation Development, I. L. Thomas (Lecture Summary), p. XXVII (March).

NAYLER, J.
Early Days of British Aeronautical Research (Lecture Summary), p. XXXVIII (March), (Lecture), pp. 1045-1054 (Dec.).

NEILSON, J. H., GILCHRIST, A. and LEE, C. K.
A Theory for the Side Force Produced in Two-Dimensional Nozzles by Secondary Gas Injection, pp. 267-274S (March).
Theoretical Aspects of Thrust Vector Control by Secondary Gas Injection in Rocket Nozzles (2nd of 3 papers), pp. 171-177S (Feb.).
Thrust Vector Control by Secondary Gas Injection in Two-Dimensional Nozzles (1st of 3 papers), pp. 77-81S (Jan.).

NEILSON, J. E. and MODI, V. J.
Roll Dynamcs of a Spinning Axi-Symmetric Satellite in an Elliptic Orbit, pp. 1061-1065 (Dec.).
Roll Dynamics of a Spinning Axi-Symmetric Satellite Using the WKJB Method, pp. 807-810 (Sept.).

NEWMAN, B. G.
A Proof of the Biot-Savart Law, p. 437 (May).

NEWMAN, D. R.
Aircraft Design as Determined by Airport Facilities and the Environment (Lecture Summary), p. XCVIII (Nov.).

NICHOLSON, L. F.
Operational Research in the RAF. 4th Sir Henry Tizard Memorial Lecture (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 847-854 (Oct.).

NOISE
Noise—City Heliport Operations (Supplementary Paper), p. 549 and p. 554 (June).
Noise—V/STOL Aircraft, p. 824S (Sept.).
Structural Damage Due to Noise, p. 865 (Oct.).
A System Solution to the Aircraft Noise Problem, I. H. Hoover, pp. 299-301 (April).
Powerplant Noise, p. 747 (Sept.).

NONWEILER, T. R. F.
The Numerical Evaluation of Curvilinear Integrals and Areas, pp. 887-888 (Oct.).

NORMAN, P. A.
Managing Costs for Profit: Part I—Business Objectives and Strategic Planning, pp. 423-430 (May). Part II—Implementing Strategic Plans, Operational Planning and Control, pp. 498-508 (June).

NORTH, J. D.
An Appreciation, pp. 1055-1057 (Dec.).

NOUAILLE, J.
The ELDO/PAS Programme and its Management (Symposium) (Lecture Summary), p. VII (Jan.), (Lecture), pp. 584-587 (July).

NOZZLES—*See* **Propulsion**

O'HAGAN, M., COLBURN, P. J. and SQUIRES, D. M.
Television Broadcasting by Synchronous Satellite (Lecture Summary), p. LXXXII (Sept.).

O'HARA, F. and BURNHAM, J.
Looking Ahead in Aeronautics—5. The Atmospheric Environment and Aircraft—Now and the Future, pp. 467-480 (June).

OPERATIONAL RESEARCH
Operations Research in Aer Lingus, M. A. Foley, pp. 596-602 (July).
Operational Research in the RAF, L. F. Nicholson (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 847-854 (Oct.).

OPINION
Advanced Machining Technology, J. Fielding, p. 54 (Jan.).
Defence, Technology and the Western Alliance, J. E. Henderson, p. 55 (Jan.).
London's Airports—Trouble Ahead, T. James, pp. 237-238 (March).
Public Sector Purchasing, C. Stuart, pp. 149-150 (Feb.).
S.I. Units for All, O. Stewart, p. 150 (Feb.).
Wanted: A National Aerospace Plan—Now, p. 512 (June).

OWEN, PROF. P. R. and YOUNG, PROF. A. D.
Correspondence on the Second Century Papers, p. 611 (July).

PARANJPE, S. C. and SRIDHAR, K.
Effects of an Initial Gap on the Turbulent Jet Flow Over a Curved Wall, pp. 63-67 (Jan.).

PARDOE, G. K. C.
Earth Resource Satellites (Lecture Summary), p. LXXXII (Sept.).

PARHAM, MAJ. GEN. H. J.
Correspondence, Unconventional Flight, reply by B. S. Shenstone, p. 970 (Nov.).

PATRICK, K. B.
Thunderstorm Project (Lecture), pp. 748-754 (Sept.).

PAYNE, N. J.
The Future City Centre Heliport (Lecture), pp. 555-556S (June),

PAYNE, P. R.
A Simplified Approach to Free-Surface Wave Drag Theory, pp. 239-242 (March).

PECKHAM, CYRIL
Air Photography (Lecture Summary), p. VII (Jan.).

PENNELL, MAYNARD
The Boeing SST—Large Transport Aeroplanes—Opportunity and Challenge. 9th Sir Richard Fairey Memorial Lecture, pp. 693-696 (Aug.).

PHILLIPS, F. C.
The Canadair CL-84 V/STOL Programme (Lecture Summary), p. XXVIII (March).

PHIPPS, R. C. J.
Correspondence, The Second Century Papers, p. 198 (March).

PORTER, B. and CROSSLEY, T. R.
Synthesis of Aircraft Modal Control Systems, pp. 697-701 (Aug.).

PORTER, R. W.
Nimbus D—Meteorological Satellite (Lecture Summary), p. LXXXII (Sept.).

PORTNOY, H.
The Slender Wing With a Half Body of Revolution Mounted Beneath, pp. 803-807 (Sept.).

PRAHL, V. E.
Résumé of the F-111 Flight Test Programme (Lecture), pp. 34-42 (Jan.).

PREDICTIONS
The Basis of Technical Prophecy, pp. 376-378 (May).
Growth and Prediction, pp. 200-201 (March).
Looking to the Future, pp. 192-193 (March).
Some Aeronautical Predictions, pp. 2-10 (Jan.).

THE PRESIDENT 1968-1969
Prof. D. Keith-Lucas, p. XXXIX (May).

PROGRESS
Changes and Advances in Aero Engine Technology, pp. 132-135 (Feb.).
ESRO II—Technical Progress, pp. 99-102S (Jan.).

POWERPLANTS—*See* Propulsion

PROPULSION
Advances in Engine Technology, p. XXX (March).
Use of Advanced Propulsion, pp. 582-583 (July).
Digital Control of Aircraft Powerplants, W. G. E. Lewis and G. E. Munns (Lecture Summary), p. XVII (March), (Lecture), pp. 989-999S (Nov.).
The Dynamics of Low-Thrust Spacecraft Manoeuvres, E. G. C. Burt (Lecture Summary), p. XXXVI (April), (Lecture), pp. 925-940 (Nov.).
Engine Inlet Development for the US SST (Illus.), p. 570 (July).
The Heat Transfer Performance of Porous Gas Turbine Blades, F. J. Bayley and A. B. Turner, pp. 1087-1094 (Dec.).
Inlet Duct—Engine Exhaust Nozzle Airflow Matching for the Supersonic Transport, J. B. Taylor, pp. 490-497 (June).
Power Generation for Aircraft in the Second Century, M. W. Thring (Second Century Paper), pp. 735-738 (Sept.).
Power Sources and Propulsion Systems for Submersible Vehicles, pp. 124-125 (Feb.).
Powerplant Thrust for STOL Aircraft, pp. 13-14 (Jan.).
Propulsion, L. G. Dawson and J. B. Holliday (Second Century Paper), p. 739-747 (Sept.).
Prospects of Further Advances, p. 390 (May).
A Standard Choked Nozzle for Absolute Calibration of Air Flowmeters, D. W. Sparkes, pp. 335-338 (April).
Theoretical Aspects of Thrust Vector Control by Secondary Gas Injection in Rocket Nozzles, J. H. Neilson, A. Gilchrist and C. K. Lee, pp. 171-177S (Feb.).
A Theory for the Side Force Produced in Two-Dimensional Nozzles by Secondary Gas Injection, J. H. Neilson, A. Gilchrist and C. K. Lee, pp. 267-274S (March).
Thrust Vector Control by Secondary Gas Injection in Two-Dimensional Nozzles, J. H. Neilson, A. Gilchrist and C. K. Lee, pp. 77-81S (Jan.).
Vectored Thrust, p. 15 (Jan.).

PROSPECTS
Long Term Prospects, pp. 393-395 (May).
Some Technical Prospects, pp. 111-113 (Feb.).

PRZEMIENIECKI, J. S.
Discrete-Element Methods for Stability Analysis of Complex Structures, pp. 1077-1086 (Dec.).

PURCHASING
Public Sector Purchasing (Opinion), pp. 149-150 (Feb.).

QUARMBY, A.
The Ratio of the Wall Shear Stresses in Concentric Annuli, pp. 345-346 (April).

RAJARATNAM, N. and MURALIDHAR, D.
Yaw Probe used as Preston Tube, pp. 1059-1060 (Dec.).

RELIABILITY—*See* Simulators

RESEARCH
Early Days of British Aeronautical Research, J. L. Nayler (Lecture Summary), p. XXVIII (March), (Lecture), pp. 1045-1054 (Dec.).
Research and Development, pp. 204-207 (March).
Research Relating to Long-Range Supersonic Cruising Aircraft, L. K. Loftin, pp. 481-489 (June).
A Review of Hovercraft Research in Britain, A. Silverleaf, pp. 1019-1028 (Dec.).

REVIEWS, AUTHORS
Allward, M., Triumphs of Flight, p. 445 (May).
American Institute of Aeronautics and Astronautics, Annals of Reliability and Maintainability, Vols. 5 and 6.
Baines, B., McIntyre, R. W. and Sims, J. A., Properties of Air and Combustion Products With Kerosine and Hydrogen Fuels, pp. 630-631 (July).
Ball, K. F. and Osborne, G. F., Space Vehicle Dynamics, p. 165 (Feb.).
Bekker, C., The Luftwaffe War Diaries, pp. 889-890 (Oct.).
Baring, M., Flying Corps Headquarters 1914-1918, p. 629 (July).
Beedle, J., 43 Squadron RFC-RAF—A History of the Fighting Cocks 1916-1966, p. 811 (Sept.).
Beletskii, V. V., II. Motion of an Artificial Satellite About its Center of Mass, I. El'yasberg, P. E., I. The Theory of Flight of Artificial Earth Satellites, p. 529 (June).
von Braun, W. and Ordway, F. I., History of Rocketry and Space Travel, p. 444 (May).
Brown, D. B., The History of the Guild of Air Pilots and Air Navigators, 1929-1964, p. 166 (Feb.).
Bruce, J. M., A Royal Air Force 75, p. 528 (June).
Clay, M. J. and Walley, B. H., Performance and Profitability, p. 248 (March).
Cole, C., Royal Air Force 1918, p. 444 (May).
Curle, N. and Davies, H. J., Modern Fluid Dynamics, Vol. 1, Incompressible Flow, p. 529 (June).
Davies, H. J. and Curle, N., Modern Fluid Dynamics, Vol. I, Incompressible Flow, p. 529 (June).
The Dickens Press, I-Spy Military Aircraft and I-Spy Civil Aircraft, p. 630 (July).
Educational Books Ltd, Learning to Fly, p. 890 (Oct.).
El'yasberg, P. E., I. The Theory of Flight of Artificial Earth Satellites and II. Beletskii V. V., Motion of an Artificial Satellite About its Center of Mass, p. 529 (June).
Eskinazi, S., Vector Mechanics of Fluids and Magnetofluids, p. 71 (Jan.).
Evans, H. L., Laminar Boundary-Layer Theory, p. 528 (June).
Faust, H., Der Aufbau der Erdatmosphere, p. 891 (Oct.).
Garner, K. C., Introduction to Control System Performance Measurements, p. 812 (Sept.).
Gibbs-Smith, C. H., A Brief History of Flying: from Myth to Space Travel, p. 348 (April).
Gould Lee, A., No Parachute, p 713 (Aug.).
Greenspan, H. P., The Theory of Rotating Fluids, p. 985-986 (Nov.).
Griffel, W., Handbook of Formulas for Stress and Strain, p. 248 (March).
Hart, C., Kites—an Historical Survey, p. 71 (Jan.).
Hollister, G. S., Experimental Stress Analysis Principles and Methods, p. 247 (March).
Hunt, L., Veteran and Vintage Aircraft, p. 714 (Aug.).
International AG/AV Centre Report of the Third Int. Ag/Av Congress 15th-18th March 1966, p. 165 (Feb.).
Jensen, N., Optical and Photographic Reconnaissance Systems, pp. 629-630 (July).
John, Duke of Bedford, The Flying Duchess, p. 527 (June).
Kármán, Theodore von with Edson, L., The Wind and Beyond, p. 248 (March).
Kraus, H., Thin Elastic Plates, p. 445 (May).
Küchemann, D., Progress in Aeronautical Sciences: Volume 9, p. 985 (Nov.).
McDonough, K., Atlantic Wings, p. 629 (July).
McIntyre, R. W., Sims, J. A and Baines, B., Properties of Air and Combustion Products With Kerosine and Hydrogen Fuels, pp. 630-631 (July).
Mann, J. Y., Fatigue of Materials. An Introductory Text, p. 247 (March).
Mead, P., Soldiers in the Air—The Development of Army Flying, p. 164 (Feb.).
Mendelson, A., Plasticity: Theory and Application, p. 889 (Oct.).
Miller, R. and Sawer, D., The Technical Development of Modern Aviation, p. 443 (May).
Morris, A., First of the Many, p. 890 (Oct.).
Penrose, H., Airymouse, p. 165 (Feb.).
O'Callaghan, J., Go Flying, pp. 347-348 (April).
Ordway, F. I. and von Braun, W., History of Rocketry and Space Travel, p. 444 (May).
Reswick, J. B. and Taft, C., Introduction to Dynamic Systems, p. 348 (April).
Rickenbacker, E., Rickenbacker, His Autobiography, p. 812 (Sept.).
Robertson, B., Aircraft Markings of the World 1912-1967, p. 812 (Sept.).
Rogers, M. and Snapiro, G., Prospects for Simulation and Simulators of Dynamic Systems, p. 713 (Aug.).
RAeS, Aerospace Proceedings 1966, p. 164 (Feb.).
Rust, K. C., The Ninth Air Force in World War II, pp. 443-444 (May).
Sawer, D. and Miller, R., The Technical Development of Modern Aviation, p. 443 (May).
Shapiro, G. and Rogers, M., Prospects for Simulation and Simulators of Dynamic Systems, p. 713 (Aug.).
Shidlovskiy, V. P., Introduction to Dynamic Rarefied Gases, p. 712 (Aug.).
Shorr, M. and Zaehringer, A. J., Solid Rocket Technology, pp. 712-713 (Aug.).
Sims, C., The Royal Air Force: The First Fifty Years, p. 347 (April).
Sims, J. A., Baines, B. and McIntyre, R. W., Properties of Air and Combustion Products with Kerosine and Hydrogen Fuels, pp. 630-631 (July).
Soare, M., Application of Finite Difference Equations to Shell Analysis, pp. 811-812 (Sept.).
Stratford, A., Air Transport Economics in the Supersonic Era, p. 247 (March).
Stroud, J., Soviet Transport Aircraft Since 1945, p. 984 (Nov.).
Taylor, Sir Gordon, Sopwith Scout 7309, p. 713 (Aug.).
Taylor, J. W. R., Pictorial History of the RAF, p. 630 (July).
Taylor, J. W. R., Jane's All the World's Aircraft 1966-7, p. 71 (Jan.).
Taylor, J. W. R., Jane's Surface Skimmer Systems, p. 71 (Jan.).
Taft, C. and Reswick, J. B., Introduction to Dynamic Systems, p. 348 (April).
Thetford, O., Aircraft of the RAF Since 1918, p. 347 (April).
Thompson, Sir Robert, The Royal Flying Corps, p. 631 (July).
Tottle, C. R., The Science of Engineering Materials, p. 530 (June).
Washizu, K., Variational Methods in Elasticity and Plasticity, p. 889 (Oct.).
Wykes, A., Air Atlantic—A History of Transatlantic Flying, p. 348 (April).
Zaehringer, A. J. and Shorr, M., Solid Rocket Technology, pp. 712-713 (Aug.).

REVIEWS
Aerospace Proceedings 1966. Royal Aeronautical Society Centenary Congress of ICAS, p. 164 (Feb.).
Air Atlantic—A History of Transatlantic Flying, A. Wykes, p. 348 (April).
Air Transport Economics of the Supersonic Era, A. Stratford, p. 247 (March).
Aircraft Markings of the World, 1912-1967, B. Robertson, p. 812 (Sept.).
Aircraft of the RAF Since 1918, O. Thetford, p. 347 (April).
Airymouse, H. Penrose, p. 165 (Feb.).
Annals of Reliability and Maintainability, Vol. 5 and Vol. 6, American Institute of Aeronautics and Astronautics, p. 528 (June).
Application of Finite Difference Equations to Shell Analysis, M. Soare, pp. 811-812 (Sept.).
Atlantic Wings, K. McDonough, p. 629 (July).
Der Aufbau der Erdatmosphere, H. Faust, p. 891 (Oct.).
A Brief History of Flying From Myth to Space Travel, C. H. Gibbs-Smith, p. 348 (April).
Experimental Stress Analysis Principles and Methods, G. S. Holister, p. 247 (March).
Fatigue of Materials. An Introductory Text, J. Y. Mann, p. 247 (March).
First of the Many, A. Morris, p. 890 (Oct.).
Flying Corps Headquarters 1914-1918, M. Baring, p. 629 (July).
The Flying Duchess, John, Duke of Bedford, p. 527 (June).
Go Flying, J. O'Callaghan, pp. 347-348 (April).
43 Squadron RFC-RAF—A History of the Fighting Cocks 1916-1966, J. Beedle, p. 811 (Sept.).
Handbook of Formulas for Stress and Strain, W. Griffel, p. 248 (March).
The History of the Guild of Air Pilots and Air Navigators 1929-1964, D. B. Browne, p. 166 (Feb.).
History of Rocketry and Space Travel, W. von Braun and F. I. Ordway, p. 444 (May).
Introduction to Control System Performance Measurements, K. C. Garner, p. 812 (Sept.).
Introduction to Dynamic Systems, J. B. Reswick and C. Taft, p. 348 (April).
Introduction to Dynamic Rarefied Gases, V. P. Shidlovskiy, p. 712 (Aug.).
I-Spy Military Aircraft and I-Spy Civil Aircraft, The Dickens Press, p. 630 (July).
Kites—an Historical Survey, C. Hart, p. 71 (Jan.).
Jane's All the World's Aircraft 1966-1967, J. W. R. Taylor, p. 71 (Jan.).
Jane's Surface Skimmer Systems, J. W. R. Taylor, p. 71 (Jan.).
Laminar Boundary-Layer Theory, H. L. Evans, p. 528 (June).

Learning to Fly, Educational Books Ltd., p. 890 (Oct.).
The Luftwaffe War Diaries, C. Bekker, pp. 889-890 (Oct.).
Modern Fluid Dynamics, Vol. 1, Incompressible Flow, N. Curle and H. J. Davies, p. 529 (June).
The Ninth Air Force in World War II, K. C. Rust, pp. 443-444 (May).
No Parachute, A. Gould Lee, p. 713 (Aug.).
Optical and Photographic Reconnaissance Systems, N. Jensen, pp. 629-630 (July).
Performance and Profitability, M. J. Clay and B. H. Walley, p. 248 (March).
Pictorial History of the RAF, J. W. R. Taylor, p. 630 (July).
Plasticity: Theory and Application, A. Mendelson, p. 889 (Oct.).
Progress in Aeronautical Sciences: Volume 9, p. 985 (Nov.).
Properties of Air and Combustion Products with Kerosine and Hydrogen Fuels, B. Baines, R. W. McIntyre and J. A. Sims, pp. 630-631 (July).
Prospects for Simulation and Simulators of Dynamic Systems, G. Shapiro and M. Rogers, p. 713 (Aug.).
Report of the Third International Agricultural Aviation Congress 15th-18th March 1966, International Ag/Av Centre IAAC, p. 165 (Feb.).
Rickenbacker. His Autobiography, E. Rickenbacker, p. 812 (Sept.).
A Royal Air Force 75, J. M. Bruce, p. 528 (June).
Royal Air Force 1918, C. Cole, p. 444 (May).
The Royal Air Force: The First Fifty Years, Charles Sims, p. 347 (April).
The Royal Flying Corps, Sir Robert Thompson, p. 631 (July).
The Science of Engineering Materials, C. R. Tottle, p. 530 (June).
Soldiers in the Air—The Development of Army Flying, P. Mead, p. 164 (Feb.).
Solid Rocket Technology, M. Shorr and A. J. Zaehringer, pp. 712-713 (Aug.).
Sopwith Scout 7309, Sir Gordon Taylor, p. 713 (Aug.).
Soviet Transport Aircraft Since 1945, J. Stroud, p. 984 (Nov.).
Space Vehicle Dynamics, K. F. Ball and G. F. Osborne, p. 165 (Feb.).
The Technical Development of Modern Aviation, R. Miller and D. Sawer, p. 443 (May).
1. Theory of Flight of Artificial Earth Satellites, P. E. El'yasberg and II. Motion of an Artificial Satellite About its Center of Mass, V. V. Beletskii, p. 529 (June).
The Theory of Rotating Fluids, H. P. Greenspan, pp. 985-986 (Nov.).
Thin Elastic Shells, H. Kraus, p. 445 (May).
Triumphs of Flight, M. Allward, p. 445 (May).
Variational Methods in Elasticity and Plasticity, K. Washizu, p. 889 (Oct.).
Vector Mechanics of Fluids and Magnetofluids, S. Eskinazi, p. 71 (Jan.).
Veteran and Vintage Aircraft, L. Hunt, p. 714 (Aug.).
The Wind and Beyond, T. von Kármán with L. Edson, p. 248 (March).

REYNOLDS-PRANDTL, 4th LECTURE
Aerodynamic Design, Dr. D. Küchemann (Lecture Summary), p. XXVIII (March).

ROBINSON, J.
A General Note on the Selection of Redundancies in Structural Analysis, pp. 626-628 (July).

ROCKETS—*See* Spacecraft

ROTHWELL, A.
The Buckling of Shallow Corrugated Webs in Shear, pp. 883-886 (Oct.).
Coupled Modes in the Buckling of Panels with Z-Section Stringers in Compression, pp. 159-163 (Feb.).

ROTORCRAFT
Circulation Control and its Application to Stopped Rotor Aircraft, I. C. Cheeseman, pp. 635-646S (July).
Commercial Operation of Helicopters, A. E. Bristow (The Eighth Cierva Memorial Lecture), pp. 667-683 (Aug.).
Experiences of City Heliport Operations, R. B. Meyersburg pp. 549-555S (June).
The Future City Centre Heliport, N. J. Payne, pp. 555-556S (June).
The Future of Rotorcraft, R. Hafner (Second Century Paper), pp. 1011-1018 (Dec.).
Helicopters, pp. 417-419 (May).
Helicopter All-Weather Operation—Equipment for the Transport Role, M. C. Curties, pp. 229-236 (March).
Helicopter Armament for Land Operations, Brig. C. D. S. Kennedy, pp. 903-910S (Oct.).
International Co-operation in the Field of Airworthiness Requirements for Helicopters, M. Joffre (Lecture Summary), p. XC (Oct.).
Marine Safety Aspects of Helicopters, W. A. Crago (Lecture Summary), p. XXVII (March).
The Next Generation of French Helicopters, L. F. G. Legrand (Lecture Summary), p. LXXXI (Sept.).
Possibilities of Compound Rotorcraft—Status 1968, R. M. Carlson (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 1029-1044 (Dec.).
The Principles and Objectives of Cost-Effectiveness Analysis, A. Stratton (Lecture), pp. 43-53 (Jan.).
Progress of the Rigid Rotor Concept, I. H. Culver, pp. 187-190S (Feb.).
Review of V/STOL Aircraft with Tilt-Propellers and Tilt-Rotors, H. V. Borst, pp. 817-830S (Sept.).
Selected Aspects of the Aerodynamics of Rotorcraft, A. E. Clarke and A. R. S. Bramwell, pp. 178-186S (Feb.).

N. E. ROWE MEDAL
Thunderstorm Project (Lecture), Flying Officer K. B. Patrick, pp. 748-754 (Sept.).

ROYAL AERONAUTICAL SOCIETY
The Abbotsford International Air Show, p LXV (July).
The AC Properties of Superconducters and their Applications, p. LXIII (July).
Accuracy and Automation in X-Ray Analysis, p. LXXVII (Sept.).
Acknowledgments, pp. XIII (Feb.), XXI (March), XLI (May), LII (June), LXIII (July), LXIX (Aug.), LXXXV (Oct.)., XCIII (Nov.), CI (Dec.).
Addition to the Birthday Honours List, p. LXIII (July).
Aero-Spot Calendar, p. XCIV (Nov.).
After Concorde and the Airbus, What Follows?, p. LXXI (August).
AGARD Bionics Symposium, p. LXVI (July).
AGARD Symposium on Storage and Retrieval of Information, p. XXXIV (April).
Agricultural Aviation Group, AGM, p. XXXI (April); All Day Meeting, p. 1 (Jan.).
Air and Space Law, p. LXXVI (Sept.).
Aircraft of the Royal Air Force-Illustrated, p. LVI (June).
Air Transport in the 1970's, p. LXXXV (Oct.).
American Institute of Aeronautics and Astronautics, p. XXXI (April).
Anniversary Celebrations of the RAF, 50th, pp. XXIV (Mar.), XLI (May), LXXI (Aug.).
Annual Conference on Solid State Physics, 6th, p. LXXVII (Sept.).
Annual General Meeting, pp. XI (Feb.), XXI (Mar.), XXXI (April), LI (June).
Annual Report of the Council. The One Hundred and Third, pp. 310-334 (April).
Associate Fellowship Examination, p. LXXXV (Oct.).
Astronautics Fifty Years Ago, p. CIV (Dec.).
Atomic Collision Phenomena in Solids Conference, p. LXXXIX (Oct.).
Attitude Changes and Stabilisation of Satellites, p. XXXIV (April).
Australia Division, p. LXIX (Aug), News, p. XC (Oct.).
Australian Air Cushion Vehicle Exhibition, p. LXXI (Aug.).
Automated Inspection—For Defects and Dimensions, p. CIV (Dec.).
Automation for Productivity—a Course for Senior Management, p. XXXIV (April).
Award of Royal Aeronautical Society Prize, 108th. Entry of Technician Apprentices, p. LIII (June).
BA Business Studies with Transport Option, p. LXXX (Sept.)
Balance Sheet, pp 316-324 (April)
Bank Holiday, p. LXIX (Aug)
Biennial Congress of the International Deep-Drawing Research Group, Fifth, p. II (Jan.).
Birthday Honours List, 1968, p. LII (June), LXXXV (Oct.).
Boadicea—BOAC's Total Computer System, p. III (Jan.)
Bradbrooke, Joan, MBE, Honorary Companion RAeS, pp. XLVII-L (June). Thank You, p. LVI (June).
Branches, Asley, H. R., p. LXVII (July); Birmingham and Wolverhampton, J. D. North, p. XXIX (March); Bradbrooke, Mrs. J., p. LVIII (June); Bristol, p. XIX (Feb.), Engine Development in an Operator's Market (Lecture Summary), p. XXIX (March), p. LXVII (July); Britain First, p. LXXXIII (Sept.), Brough, p. XXXVII (April), p. XLVI (May), "Apprentices at Aircraft Works to Go Gliding"; p. LXXXIII (Sept.), p. XCIX (Nov.); Cambridge, p. LXXXIII (Sept.); Clinton, A. Cadman—Obituary, p. XXIX (March); Conference, p. LXVII (July), CVII (Dec.); Coventry, p. XCIX (Nov.), CVII (Dec.); Discussion Sessions, p. XCI (Oct.); Dublin, p. LVIII (June); Farnborough, p. LXXXIII (Sept.); Gloucester and Cheltenham, p. XXXVII (April), XLVI (May); London Airport, p. XCI (Oct.); Luton and Stevenage, p. LXXIII (Aug.); Southampton, p. CVII (Dec.); Mercer, Sqn. Ldr., p. LVIII (June); Prestwick, p. LXXIII (Aug.); RAeS Newspaper, p. XCIX (Nov.); N. E. Rowe Medals, p. IX (Jan.); Southend, pp. XXXVII (April), XLVI (May), LVIII (June), LXVII (July); British Aerospace Course, p. LXVI (July).
British Interplanetary Society—First Annual Meeting, p. XXIX (March).
The British Society of Rheology, Gold Medal Competition, p. LXVI (July.).
CASI International Aerospace Exposition, p. XXXV (April).
Centenary Gift, p. LIII (June).
Centenary Journal, p. XL (May).
Centre for the Advancement of Mathematical Education in Technology, p. LVI (June).
The Change to Decimal Currency, p. XCIV (Nov.).
Chartered Engineers Certificates and Cards of Registration, p. XLI (May).
Christmas Holidays, p. XCIII (Nov.).
Civil Air Transport Inquiry Edwards' Committee, p. XV (Feb.).
Commission of Inquiry on the Third London Airport, p. LXIII (July).
Committee of Inquiry into Civil Air Transport, p. LV (June).
The Compatibility of Transport Systems, p. LXXVI (Sept.).
Conference on Combustion for Power, p. LIV (June).
Conference on Cracking in Welds, p. LXXXIX (Oct.).
Conference on Dimensioning and Strength Calculations, Third, p. LIV (June).
Conference on Electronics Design, p. XXIV (March).
Conference on Elementary Particles, p. LXIII (July).
Conference on Lasers and Opto-Electronics, 25th-27th March 1969, p. CIV (Dec.).
Conference on Microelectronics in Equipment, Third, p. LXXVIII (Sept.).
Conference on the Physics of Liquids, p. LXXXV (Oct.).
Conference on Safety for Construction Sites, p. LXXI (Aug.).
Conference on Solid State Devices, 2nd, p. XXXII (April).
Conference on Technology Forecasting, p. LVI (June).
Congress of the International Council of Aeronautical Sciences, Sixth, p. XXXI (April).
Control System Performance Measurements, p. XLI (May).
Cornell-Guggenheim Aviation Safety Center, p. LXXI (Aug.).
Council of Engineering Institutions, Annual Report, p. XVI (Feb.), Examination, p. LXXV (Sept.), News, p. LII (June), LXIX (Aug.), LXXVI (Sept.), Scheme for Senior Industrial Fellowships, p. II (Jan.).
Cranfield Fluidics Conference Torino, Third, p. XXXIV (April), p. LIII (June).
Cranfield Society Symposium on Integrated Transport, p. LIV (June).
The Cranfield International Propulsion Symposium, p. XCVI (Nov.).
Curtiss Schneider Trophy Seaplanes, p. II (Jan.).
D-Day Memorial, p. XCVI (Nov.).
Decision Making—Second Century Papers, p. XXI (March).
Designing with Brittle Materials, p. XCIV (Nov.).
Developments in Machinery for Low Temperature Processes, p. LXXI (Aug.).
Dorothy Spicer Memorial Award 1967, p. VI (Jan.), p. XLI (May).
Dublin Branch, p. LII (June).
Election of President-Elect and Vice-Presidents, p. LI (June).
Elections, pp. III (Jan.), XXIV (March), XXXIII (April), XIV (Feb.), XLII (May), LIII (June), LXIII (July), LXIX (Aug.), LXXV (Sept.), XCIV (Nov.), CI (Dec.).
Electronics Design Conference, p. LXVI (July).
Electronics in the 1970's, p. LVI (June).
Employment of Quantity Surveyors, p. XIII (Feb.).
Engineering Aspects of Lubrication, p. XXXIV (April).
Engineering Design with Plastics, p. LXV (July).
Engineers Foreign Language Circle, p. XLI (May).
The Engineer and the Law, p. XXIII (March).
Engineering Sciences Data Unit—New Address, p. LXXXV (Oct.).
English Aircraft in Canada, p. LVI (June).
European Aerospace Data Exchange Symposium, p. LXXV (Sept.).

European Colloquium on Space Radiation Computation, p. II (Jan.).
European Symposium on Space Technology, VIIIth, p. XXXIV (April).
Fellows Elected, pp. I (Jan.), XXIII (March), XXXIII (April), XL (May), LII (June), LXIII (July), LXIX (Aug.), LXXV (Sept.), XCIII (Nov.), CI (Dec.).
Fibre Exhibition, p. XXXVI (April).
Formation of the Air Transport Group, p. XXXI (April).
General Assembly IAU (Sussex 1970), XIVth, p. XXVII (March).
German Aviation Show and Hanover Fair, p. XXV (March).
Graduates' and Students' Section, Advances in Engine Technology (Lecture Summary), p XXX (March); All in the Committees' Work, p. LVII (June); The Buccaneer, p. X (Jan.); Chairman, p. CVIII (Dec.); Chairman's Letter 1968, p. LVII (June); Christmas Dance, p. XX (Feb.); Christmas Dance, p. C (Nov.); CEI Meeting of Young Engineers, p. XXXVIII (April); City University Sub-Section, p. X (Jan.), p. CVIII (Dec.); Eat, Listen and be Merry, p. XCII (Oct.); ELDO and European Space in the Shadow of Apollo, pp. XLIV-XLV (May); Engineering is Fun, p. XCI (Oct.); Engineering Training in the Airlines, p. CVIII (Dec.); Flight Simulators, p. XX (Feb.); Future Trends, p. CVIII (Dec.); Sir George at the City University Sub-Section, p. LVII (June); Interservice Hovercraft Unit, HMS Daedalus, 5th July 1968, p. LVII (June); Jaguar—Summary of a talk by I. R. Yates, 12th November, p. XCII (Oct.); The Jetstream Story to Date (Lecture Summary), p. X (Jan.), XXX (March); Notices of Lectures, p. LXXIV (Aug.); Notices, p. LXXXIV (Sept.), XCII (Oct.); The Pilcher-Usborne Prize, p. LXXXIV (Sept.); Result of the Section Committee Ballot, p. XXXVIII (April); A Status Report of the Boeing 747, J. Sutter (Lecture Summary), p. LXXIV (Aug.); Symposium: After Concorde and the Airbus, What Follows?, p. LXXXIV (Sept.); Visit to Inter-Services Hovercraft Trials Unit, p. LXXIV (Aug.); Visit to Redifon, p. XXXVIII (April); LXVIII (July); Weybridge Man Powered Aircraft Project, p. LXVIII (July); What Action?, p. C (Nov.); A Word or Two About Films, p. LXXXIV (Sept.).
Graham Clark Lecture, 14th, p. XXI (March).
Guggenheim International Astronautics Award, p. LXXXIX (Oct.).
Guild of Air Pilots and Air Navigators Air Display and Garden Party, 25th May, p. XLI (May).
Halton Branch—a Correction, p. XXII (March).
Handley Page Company, p. XV (Feb.).
The Handley Page Memorial Award, p. XI (Feb.).
Harkness Fellowships for 1969, p. LXXVI (Sept.).
Heat and Mass Transfer in Turbulent Boundary Layers, p. LIV (June).
Honorary Fellows, p. I (Jan.).
Honours Awarded to Members, pp. 1 (Jan.), XI (Feb.), XXI (March), XL (May), LII (June), LXIII (July).
HRH The Duke of Edinburgh, p. LII (June).
Inaugural Meeting of LJC, p. XIV (Feb.).
IEE Summer Meeting in Sheffield, p. LVI (June).
IEEE International Congress on Instrumentation in Aerospace Simulation Facilities, Third, p. LXXVIII (Sept.).
Institute of Quantity Surveyors, p. II (Jan.).
Intermag Conference, p. LXXI (Aug.).
International Aerospace Instrumentation Symposium, Fifth, p. XIV (Feb.).
International Agricultural Aviation Congress, Fourth, p. ?—?.? (Dec.).
XVIIIth International Apprentice Competition, p. XCIV (Nov.).
International Astronautical Congress New York, XIXth, 13th-19th October 1968, p. II (Jan.).
International Astronautical Federation Congress, 19th, p. LIII (June).
International Atomic Energy Agency Safeguards, p. LXXXIX (Oct.).
International Collaboration in Aviation, p. XXXI (April).
International Conference on Aerospace Computers in Missiles and Spacecraft, p. LXXXIX (Oct.).
International Conference on Computer Aided Design, p. LXX (Aug.).
International Congress on Electro-Heat, VIth, p. XXVII (March).
International Conference on Fluid Sealing, p. XVI (Feb.).
International Congress of Transports and Communications, XVIth, p. XXXIV (April).
International Conference of Women Engineers and Scientists 1967, Second, p. CIV (Dec.).
International Cryogenics Engineering Conference, 2nd, p. XVI (Feb.).
International Forum for Air Cargo, 4th, p. XLI (May).
International Noise Abatement Congress and Exhibition, p. XXXVI (April).
International Research Symposium on Electrical Contact Phenomena, 4th, pp. XXXIV (April), LIV (June).
International Symposium on Combustion, The Twelfth, p. LIV (June).
International Symposium on Distillation, p. LXXI (Aug.).
International Symposium on Rarefied Gas Dynamics, Sixth, p. LIV (June).
Investing in Technicians, p. LXXVI (Sept.).
JBCSA Conference, p. II (Jan.), p. XXI (March).
Joint Course on Tribology, p. LVI (June).
Joint Meeting with the British Section of the Society of Civil Engineers of France, p. XLI (May).
Von Karman Institute for Fluid Dynamics, p. II (Jan.), p. XIV (Feb.).
F. W. Lanchester Centenary, p. LXXVI (Sept.).
Lectures on Noise, p. LXXXV (Oct.).
Lecture Summaries, pp. VII-VIII (Jan.), XVIII (Feb.), XXVII-XXVIII (Mar.), XXXVI April, LXXVIII-LXXXII (Sept.), LXXXIX-XC (Oct), XCVII-XCVIII (Nov.), CIV-CVI (Dec.).
The Library, p. XIV (Feb.), p. XXI (March).
Light Aircraft Enthusiasts' Weekend, p. XXXIII (March).
Louis Blériot Lecture, 21st, p. XXI (March).
Low Temperatures and Electric Power, p. LXXI (Aug.).
Man Powered Aircraft Group, p. XXXI (April).
Management Studies Group, p. XIII (Feb.), CIV (Dec.).
Management Studies Group Discussion Evening, p. I (Jan.).
Management Studies Group Joint Meeting with the Manufacture and Management Group of the IMechE and the Engineering Management Group of the ICE, p. CIV (Dec).
Management Studies Group: Symposium on Ministry of Technology Project Management and Incentive Contracting Procedures, p. LXX (Aug.).
Management Studies Group Symposium, p. LXXVI (Sept.).
Medals and Awards, p. III (Jan.).
To All Members in Washington State, p. LXXVI (Sept.).
Metric Programme for the Engineering Industry, p. LXXVI (Sept.).
Metrication and S.I. Units, p. II (Jan.).
MIT Joint Summer Conference on the Computer in the University, p. XXXIV (April).
A National Design Council, p. LXXXV (Oct.).
New Postal Address Code, p. LXVI (July).
New Scientist Award 1969, p. XCIV (Nov.).
New Year Honours List 1968, p. I (Jan.).
News of Members, pp. VI (Jan.), XVII (Feb.), XXVI (March), XXXV (April), XLII (May), LV (June), LXIV-LXV (July), LXX (Aug.), LXXVIII (Sept.), LXXXVIII (Oct.), XCVI-XCVII (Nov.), CI-CIII (Dec.).
The Non-Destructive Testing of Materials, p. CIV (Dec.).
Obituaries, pp. LXIX (Aug.), LXXV (Sept.), LXXXV (Oct.), XCIII (Nov.), CI (Dec.).
One Day Conference and Demonstration of Aerial Spraying, p. LIV (June).
Opening of Science Reference Library Extension, p. LXXV (Oct.).
Optical Methods in Atomic Physics, p. XXI (March).
Osborne Reynolds Centenary Celebration, p. LXV (July).
Popular Flying Association—Fly-in at Rearsby, p. LXIII (July).
The Physics Exhibition 1968, p. XIII (Feb.).
Physics in the Metal Forming Industries, pp. XXVII (March), LXXV (Oct.).
Plasma Diagnostics, p. LIV (June).
Plasma Physics Group, p. LXXXIX (Oct.).
Preparing for Metrication, p. XXXIV (April).
Presentation of the 1966 Alan Medal, p. XL (May).
The President 1968-1969, p. XXXIX (May).
Pritchard, J. L., pp. XL (May), LIX (July).
Prizes for Written Papers, p. XL (May).
Production Control by Computer, p. XLI (May).
Production Planning and Control, p. LIV (June).
Profits from Scientific Decision Making—The Role of Operations Research in Industry, p. LVI (June).
Registration Certificates and Cards for Chartered Engineers, p. XI (Feb.).
Recent Developments in Production Grinding with Diamond, p. LVI (June).
Reynolds-Prandtl Lecture, 4th, p. XXI (March).
The Reliability of Service Equipment Conference, p. XIII (Feb.).
Robert Blackburn Memorial Trust Open Scholarship, p. XLI (May).
Rotorcraft Section Biennial Dinner, p. LXVI (July).
Rotorcraft Section Garden Party, p. XLI (May).
RAeS/SLAET Liaison, p. LXVI (July).
Royal Aeronautical Society Scholarship, p. LXXV (Sept.).
Royal Aeronautical Society University Prizes, p. XIV (Feb.).
SAE Congress, p. XXXVI (April).
1969 SAE Congress and Exposition, p. XCIX (Nov.).
Salon Internationale de l'Aviation Generale, p. LXXI (Aug.).
Scanning Electron Microscopy Conference, p. LIV (June).
Scientific Stock Control, p. LVI (June).
Secretary's Newsletter, p. XXXI (April).
Secretary's News Letter, p. XI (Feb.).
Secretary's Newsletter, p. XCIII (Nov.).
Seminar on the Control and Stability of Aircraft, p. XCIV (Nov.).
Short Courses at the College of Aeronautics, Cranfield. An Introduction to Some Aspects of Polymer Physics. APT Part Programming for Numerically Controlled Machine Tools, p. LXXVIII (Sept.).
Short Course on Gas Turbine Combustion, p. LXXXIX (Oct.).
Short Course on Heat Transfer, p. LXXXV (Oct.).
Short Post-Graduate Courses in Applied Mechanics at the University of Sheffield, p. LXXI (Aug.).
Short Post-Graduate Courses in Applied Mechanics at the University of Sheffield, p. LXV (July).
Short Post-Graduate Courses in Applied Mechanics at the University of Sheffield, p. LIV (June).
Short Post-Graduate Course in Fluid Mechanics, p. LXXI (Aug.).
1st Shuttleworth Air Pageant, p. LXXI (Aug.).
The Society of Air Safety Investigators, p. LXXVI (Sept.).
Sonically Induced Vibration of Structures, p. LXXXIX (Oct.).
Sound, Noise and Vibration, p. LXXXIX (Oct.).
Space Experiment Technology, p. XCVI (Nov.).
Stanier Class "8F", p. LVI (June).
Support for International Data Exchange System on Aerospace Products, p. XCIII (Nov.).
Survey of Professional Engineers, 1968, p. LXXXV (Oct.).
S.I. Units, p. XLI (May).
S.I. Units,Corrections, p. XXI (March).
Symposium on Flight Testing for the Certification of Civil Transport Aircraft, Correction, p. I (Jan.).
Symposium on Fluidics, IFAC, p. LXXV (Sept.).
Symposium on Instrumentation and Data Processing for Industrial Aerodynamics, p. LXV (July).
Symposium on Multivariable Control Systems, IFAC, p. LIV (June).
Symposium on Research in Concurrent Gas-Liquid Flow, p. LIV (June).
Symposium on Wind Effects on Buildings and Structures, p. XIV (Feb.).
Technical Information for Engineers: What They Need and What They Get, p. LXV (July).
Techniques for Data Handling in Tactical Systems, p. LXXVIII (Sept.).
Test Pilots' Group AGM, p. XL (May).
Transport Systems Characteristics, p. LIV (June).
UK Seminar on Communication—Satellite Earth Station Planning and Operation, p. XVI (Feb.).
UNESCO's Activities in Engineering for the Benefit of the Developing Countries, pp. II (Jan.); XL (May).
Winston Churchill Travelling Fellowships in 1969, p. LXXXV (Oct.).
Woodford Man Powered Aircraft Group, p. XCIV (Nov.).
World Federation of Engineering Organisations, p. XXXIV (April).
Utilisation of Pyrotechnic and Explosive Elements in Space Designs, p. XLI (May).
The Uses of Information Theory, p. LIV (June).
William Littlewood, Honorary Fellow, p. LXVI (July).

ROYAL AIR FORCE
Air Reconnaissance in the Royal Air Force Past, Present and Future, Air Cdre. E. D. Crew (Lecture Summary), pp. LXXXIX-XC (Oct.).
Per Ardua Peradvanture. A Contemporary Review of the First Fifty Years of the RAF, Sir Victor Goddard (Lecture Summary), p. XXXVI (April), (Lecture), pp. 855-862 (Oct.).
Operational Research in the RAF, L. F. Nicholson (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 847-854 (Oct.).
The Royal Air Force Museum, J. Tanner, pp. 287-290 (April).

ROYCE, SIR HENRY, 12th MEMORIAL LECTURE
Small Aero-Engines Past, Present and Future, Dr. E. S. Moult, pp. 409-421 (May).

SAFETY
Bird and Hail Impact, p. 864 (Oct.).
The Jumbo Jet and Public Safety, J. Lederer, pp. 291-298 (April).
Level of Engineering Safety, p. 121 (Feb.).

Life Support and Safety in Underwater Craft, p. 126 (Feb.).
Marine Safety Aspects of Helicopters, W. A. Cargo (Lecture Summary), p. XXVIII (March).
Medical Aspects of Safety, E. F. Edson (Lecture Summary), p. XVIII (Feb.).

SAILPLANES
Gliding and Soaring (Sailplanes), pp. 661-665 (Aug.).

SATELLITES—*See* **Spacecraft**

SCHAEFER, G. W. and ELLIOTT, J. S.
Aerodynamics of Flapping Flight (Lecture Summary), p. XXXVI (April).

SCHAIRER, G. S.
The Role of Competition in Aeronautics. 57th Wilbur and Orville Wright Memorial Lecture (Lecture Summary), p. XCVIII (Nov.).

SCHARPF, D. W. and ARGYRIS, J. H.
The SHEBA Family of Shell Elements for the Matrix Displacement Method, pp. 873-883 (Oct.).

SCHARPF, D. W., ARGYRIS, J. H. and FRIED, I.
The TUBA Family of Plate Elements for the Matrix Displacement Method, pp. 701-709 (Aug.).
The TET 20 and TEA 8 Elements for the Matrix Displacement Method, pp. 618-623 (July).
The HERMES 8 Element for the Matrix Displacement Method, pp. 613-617 (July).

SECOND CENTURY PAPERS
Looking Ahead in Aeronautics, J. E. Allen, pp. 2-10 (Jan.).
Looking Ahead in Aeronautics—1. An Aerodynamicists Prospect of the Second Century, D. Küchemann, pp. 109-114 (Feb.).
Looking Ahead in Aeronautics—2. The Future for Agricultural Aviation, A. H. Wheeler, pp. 191-197 (March).
Looking Ahead in Aeronautics—3. The Future Role of Computers with Special Reference to Aerodynamic Design, B. Thwaites, pp. 275-284 (April).
Looking Ahead in Aeronautics—4. Astronautics—Its Development During the Second Century of the RAeS (1966-2066), A. V. Cleaver, pp. 373-384 (May.).
Looking Ahead in Aeronautics—5. The Atmospheric Environment and Aircraft—Now and the Future, F. O'Hara and J. Burnham, pp. 467-480 (June).
Looking Ahead in Aeronautics—6. The World of the Structural Engineer, W. G. Molyneux, pp. 557-566 (July).
Looking Ahead in Aeronautics—7. Unconventional Flight, B. S. Shenstone, pp. 655-666 (Aug.).
Looking Ahead in Aeronautics—8. Power Generation for Aircraft in the Second Century, M. W. Thring, pp. 735-738 (Sept.).
Looking Ahead in Aeronautics—9. Propulsion, L. G. Dawson and J. B. Holliday, pp. 739-747 (Sept.).
Looking Ahead in Aeronautics—10. Man-Machine Integration: A Long Term Look, G. Melvill Jones, pp. 831-846 (Oct.).
Looking Ahead in Aeronautics—11. Hovercraft, R. Stanton-Jones, pp. 911-914 (Nov.).
Looking Ahead in Aeronautics—12. Avionics—Towards the Twenty-First Century, P. A. Hearne, pp. 915-924 (Nov.).
Looking Ahead in Aeronautics—13: The Future of Rotorcraft, R. Hafner, pp. 1011-1018 (Dec.).
The Second Century Papers, W. von Braun (Correspondence), p. 611 (July).
The Second Century Papers, F. C. Durant (Correspondence), p. 513 (June).
The Second Century Papers, Sir Roy Fedden (Correspondence), p. 513 (June).
The Second Century Papers, A. D. Young and P. R. Owen (Correspondence), p. 611 (July).
The Second Century Papers, R. C. J. Phipps (Correspondence), p. 198 (March).

SHARMAN, P. W. and HUMPHERSON, J.
An Experimental and Theoretical Investigation of Simply-Supported Thin Plates Subjected to Lateral Load and Uniaxial Compression, p. 431-436 (May).

SHENSTONE, B. S.
Looking Ahead in Aeronautics—7. Unconventional Flight, pp. 655-666 (Aug.).

SHOCK WAVE
Shock Wave Angles and Wedge Angles, pp. 80-81S (Jan.).

S.I. UNITS
S.I. Units, pp. 147-148 (Feb.).
S.I. Units, J. B. Hargrave (Correspondence), p. 612 (July).
S.I. Units, M. Langley (Correspondence), p. 422 (May).
S.I. Units, Y. R. Mayhew (Correspondence), p. 198 (March).
S.I. Units for All, O. Stewart (Opinion), p. 150 (Feb.).
S.I. Units, O. Stewart (Correspondence), p. 684 (Aug.).

SILVERLEAF, A.
A Review of Hovercraft Research in Great Britain (Lecture Summary), p. XVIII (Feb.), (Lecture), pp. 1019-1028 (Dec.).

SIMULATORS
Fleet Simulations, pp. 598-599 (July).
Flight Simulators, p. XX (Feb.).
Guided Weapon Simulators, I. N. Cartmell and R. W. Williams, pp. 356-360S (April).
Reliability and Utilisation of Flight Simulators, G. J. de Wit, pp. 59-62 (Jan.).
SST-ATC Simulation, pp. 486-488 (June).

SKIN FRICTION
Kinetic Heating of Aircraft Structures, J. Taylor, pp. 941-955 (Nov.).

SNAITH, L. S.
Schneider Trophy Flying—Reminiscences (Lecture Summary), p. XCVIII (Nov.).

SPACECRAFT
Aeronautical Satellite Systems for Aircraft Control and Communications in the European Environment, H. G. Leysieffer (Lecture Summary), p. LXXXII (Sept.).
BAC Mustard Project (Illus.), p. 375 (May).
Blue Streak (Illus.), p. 574 (July).
Cora Launch (Illus.), p. 580 (July).
Deep-Space Exploration Ship (Illus.), p. 382 (May).
The Dynamics of Low-Thrust Spacecraft Manoeuvres, E. G. C. Burt (Lecture Summary), p. XXXVI (April), (Lecture), pp. 925-940 (Nov.).
Earth Resource Satellites, G. K. C. Pardoe (Lecture Summary), p. LXXXII (Sept.).
Europa 1 (Illus.), p. 574 (July).
The Importance of Application Satellites to the European Economy, R. C. Curnow (Lecture Summary), p. LXXXII (Sept.).
Nimbus D Meteorological Satellite, R. W. Porter (Lecture Summary), p. LXXXII (Sept.).
Rockets with Limited Thrust, p. 142 (Feb.).
Roll Dynamics of a Spinning Axi-Symmetric Satellite in an Elliptic Orbit, V. J. Modi and J. E. Neilson, pp. 1061-1066 (Dec.).
Space Structures, pp. 585-586 (July).
Television Broadcasting by Synchronous Satellite, P. J. Colburn, D. M. Squires and M. O'Hagan (Lecture Summaries), p. LXXXII (Sept.).
Wheel-shaped Space Station (Illus.), p. 381 (May.).

SPACECRAFT RENDEZVOUS
The Rendezvous Problem, pp. 143-144 (Feb.).

SPACE TRAJECTORIES
Optical Space Trajectories—A Review of Published Work, D. J. Bell, pp. 141-146 (Feb.).

SPARKES, D. W.
A Standard Choked Nozzle for Absolute Calibration of Air Flowmeters, pp. 335-338 (April).

SPEED
The Demand For Speed, pp. 201-204 (March).
The Impact of Speed on Transport, Sir George Edwards, pp. 603-610 (July).

SQUIRE, L. C.
Some Effects of Thickness on the Longitudinal Characteristics of Sharp-Edged Delta Wings at Low Speeds, pp. 151-155 (Feb.).

SQUIRES, D. M., O'HAGAN, M. and COLBURN, P. J.
Television Broadcasting by Synchronous Satellite (Lecture Summary), p. LXXXII (Sept.).

SRIDHAR, K. and PARANJPE, S. C.
Effects of an Initial Gap on the Turbulent Jet Flow Over a Curved Wall, pp. 63-67 (Jan.).

SRINIVASAN, R. S. and SUNDARA RAJA IYENGAR, K. T.
Reply to Clamped Skew Plate Under Uniform Normal Loading, by J. B. Kennedy, p. 340 (April).

STABILITY AND CONTROL
Automatic Stabilisation—Helicopters, pp. 230-233 (March).
Calculation of the Response of a Fighter Aircraft to a Turbulent Air and a Comparison with Flight Measurements, C. G. B. Mitchell, pp. 303-309 (April).
Considerations for STOL Aircraft, pp. 21-23 (Jan.).
ESRO II—Attitude Control, pp. 104-107S (Jan.).
On Fitting Man Into the Control System of Certain Guided Weapons, P. F. Foreman, pp. 361-367S (April).
Problems of Guidance, in Particular—Inertial Guidance, R. B. Mattin, pp. 587-595 (July).
Rotorcraft Control Response, pp. 184-185S (Feb.).
Self-adaptive Control Systems, K. V. Diprose, pp. 367-372S (April).
Synthesis of Aircraft Modal Control Systems, T. R. Crossley and B. Porter, pp. 697-701 (Aug.)

STALLING
Separation and Stalling Characteristics, pp. 84-89S (Jan.).
Wing Stall During Descent, pp. 818-819S (Sept.).

STANTON-JONES, R.
Looking Ahead in Aeronautics—11. Hovercraft, pp. 911-914 (Nov.).

STEWART, O.
Correspondence on S.I. Units, p. 684 (Aug.).
Opinion, S.I. Units, p. 150 (Feb.).

STRATTON, A.
The Principles and Objectives of Cost-Effectiveness Analysis (Lecture), pp. 43-53 (Jan.).

STRUCTURES
The Buckling of Shallow Corrugated Webs in Shear, A. Rothwell, pp. 883-886 (Oct.)
Clamped Skew Plate Under Uniform Normal Loading, J. B. Kennedy, pp. 338-339 (April). Reply by K. T. Sundara, R. Iyengar and R. S. Srinivasan, p. 340 (April).
Comments on Complete Polynomial Displacement Fields for Finite Element Method, B. M. Irons, pp. 709-711 (Aug.).
Complete Polynomial Displacement Fields for Finite Element Method, P. C. Dunne, pp. 245 -246 (March).
A Convenient Way of Taking Wing (and Fuselage) Flexibility Into Account in Calculating Undercarriage Loads, D. Williams, pp. 353-355S (April).
Coupled Modes in the Buckling of Panels with Z-Section Stringers in Compression, A. Rothwell, pp. 159-163 (Feb.).
Discrete-Element Methods for Stability Analysis of Complex Structures, J. S. Przemieniecki, pp. 1077-1086 (Dec.).
The Effects of Solid Viscosities to Dynamic Load Factors of the Ring and the Hollow Sphere Subjected to Impulsive Loads, S.-I. Suzuki, pp. 971-976 (Nov.).
An Experimental and Theoretical Investigation of Simply-Supported Thin Plates Subjected to Lateral Loads and Uniaxial Compression, P. W. Sharman and J. Humpherson, pp. 431-436 (May).
The Five Point Loading Shear Stiffness Test, M. Langley, p. 442 (May).
Further Comments on Pontryagins Maximum Principle Applied to the Profile of a Beam, L. C. W. Dixon, pp. 518-519 (June).
A General Note on the Selection of Redundancies in Structural Analysis, J. Robinson, pp. 626-628 (July).
The HERMES 8 Element for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp 613-617 (July)
The LUMINA Element for the Matrix Displacement Method, J. H. Argyris, pp. 514-517 (June). Correction, p. 617 (July).
The Ratio of the Wall Shear Stresses in Concentric Annuli, A. Quarmby, pp. 345-346 (April).
Rotary Inertia and Shear in Beam Vibration Treated by the Ritz Method, B. Dawson, pp. 341-344 (April).
A Sequel to Technical Note 14 on the TUBA Family of Plate Elements, J. H. Argyris and K. E. Buck, pp. 977-983 (Nov.).
The SHEBA Family of Shell Elements for the Matrix Displacement Method, J. H. Argyris and D. W. Scharpf, pp. 873-883 (Oct.).
Stresses in Skin Panels Subjected to Random Acoustic Loading, B. L. Clarkson, pp. 1000-1010S (Nov.).

Structural Aspects of the Do 31 Jet-Lift VTOL Aircraft, M. Flemming, pp. 719-734S (Aug.).
Structural Testing, G. W. Underwood, pp. 863-872 (Oct.).
Structural Viability—Gusts, pp. 470-471 (June).
The TET 20 and TEA 8 Elements for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp. 618-623 (July).
The TUBA Family of Plate Elements for the Matrix Displacement Method, J. H. Argyris, I. Fried and D. W. Scharpf, pp. 701-709 (Aug.).
The World of the Structural Engineer, W. G. Molyneux (Second Century Paper), pp. 557-566 (July).

STUART, C.
Opinion, Public Sector Purchasing, pp. 149-150 (Feb.).

SUBMERSIBLES
Functional Requirements for Research/Work Submersibles, N. C. Flemming (Lecture), pp. 123-131 (Feb.)

SUPERSONIC TRANSPORT
The Airworthiness of Supersonic Aircraft, H. C. Black, pp. 115-122 (Feb.).
The Boeing SST—Large Transport Aeroplanes—Opportunity and Challenge, M. Pennell, pp. 693-696 (Aug.).
Inlet Duct-Engine Exhaust Nozzle Airflow Matching for the Supersonic Transport, J. B. Taylor, pp. 490-497 (June).
Looking Ahead in Aeronautics, pp. 2-10 (Jan.).
Operational Aspects of the Supersonic Transport, C. Abell (Lecture Summary), p. XVIII (Feb.).
Research Relating to Long-Range Supersonic Cruising Aircraft, L. K. Loftin, pp. 481-489 (June).
The United States Supersonic Transport—A Progress Report, J. M. Swihart, pp. 567-573 (July).

SURRY, D., DAU, K. McLEOD, M.
Two Probes for the Measurement of the Complete Velocity Vector in Subsonic Flow, pp. 1066-1068 (Dec.).

SUZUKI, S.-I.
The Effect of Solid Viscosities to Dynamic Load Factors of the Ring and Hollow Sphere Subjected to Impulsive Loads, pp. 971-976 (Nov.).

SWIHART, J. M.
The United States Supersonic Transport—A Progress Report (Lecture), pp. 567-573 (July).

TABARROK, B.
Some Remarks on Zero Frequency Modes, pp. 68-70 (Jan.).

TAKE-OFF AND LANDING
Aborted Take-Offs, p. 298 (April).
Approach and Landing, p. 294 (April).
Development of Take-Off Procedures—City Heliport Operations, p. 551S (June).
Forward Speed and Final Approach, Jet V/STOL Aircraft, pp. 895-896 (Oct.).
High Lift Devices for Take-Off and Landing, pp. 389-390 (May).
Problems Affecting Take-Off and Landing, pp. 477-478 (June).
Propeller Performance at Take-Off and Cruise, p. 822S (Sept.).
STOL Aircraft, pp. 17-21 (Jan.).
Take-Off and Approach Procedures, pp. 301-302 (April).

TANNER, J.
The Royal Air Force Museum, pp. 287-290 (April).

TAYLOR, J.
Kinetic Heating of Aircraft Structures (Lecture Summary), p. VIII (Jan.), (Lecture), pp. 941-955 (Nov.).

TAYLOR, J. B.
Inlet Duct-Engine Exhaust Nozzle Airflow Matching for the Supersonic Transport (Lecture), pp. 490-497 (June).

TELEMETRY
Telemetry and Command System for ESRO II, pp. 94-95S (Jan.).

TEMPERATURE
Temperature and Altitude Effects on STOL Aircraft, pp. 25-26 (Jan.).

TERRAIN FOLLOWING
F-111 Flight Test Programme, p. 39 (Jan.).

TEST PILOT
A Résumé of the F-111 Flight Test Programme, V. E. Prahl (Lecture), pp. 34-42 (Jan.).
Increased Piloting Tasks and Performance of X-15A-2 in Hypersonic Flight, W. J. Knight, pp. 793-802 (Sept.).
Piloting Aspects of Poor Weather Jet V/STOL, J. F. Farley, pp. 893-902S (Oct.).

THERMODYNAMICS
— *See also* **Propulsion**
Equilibrium Thermodynamic Properties Behind Strong Shocks in Helium, M. Lalor and H. Daneshyar, pp. 155-159 (Feb.).

THOMAS, I. L.
Present Trends in Inertial Navigation Technique (Lecture Summary), p. XXVII (March).

THRING, M. W.
Looking Ahead in Aeronautics—8. Power Generation for Aircraft in the Second Century, pp. 735-738 (Sept.).

THURSTON, A. P.
pp. 5-6 (Jan.).

THWAITES, B.
Correspondence on the Second Century Papers, pp. 611-612 (July).
Looking Ahead in Aeronautics—3. The Future Role of Computers with Special Reference to Aerodynamic Design, pp. 275-284 (April).

TKACHENKO, A. V.
pp. 750-751 (Sept.).

TIZARD MEMORIAL LECTURE, FOURTH
Operational Research in the RAF, L. F. Nicholson (Lecture Summary), p. VIII (Jan.), (Lecture), (Boscombe Down), pp. 847-854 (Oct.).

TRANSPORT SYSTEMS
The Influence of Aerospace on Future Transport Systems, K. L. C. Legg (Sixth Handley Page Memorial Lecture), pp. 771-792 (Sept.).
The Transport Gap, p. 911 (Nov.).

TURNER, A. B. and BAYLEY, F. J.
The Heat Transfer Performance of Porous Gas Turbine Blades, pp. 1087-1094S (Dec.).

TYLER, R. A. and WILLIAMSON, R. G.
Sudden Area Enlargement Pressure Recovery with Inflow Distortion, pp. 243-244 (March).

UNCONVENTIONAL FLIGHT
Unconventional Flight, B. S. Shenstone (Second Century Paper), pp. 655-666 (Aug.).
Unconventional Flight, Maj. Gen. H. J. Parham (Correspondence), and reply, B. S. Shenstone, p. 970 (Nov.)
Unconventional Flight, "Branta Canadensis" (Correspondence), and Reply, B. S. Shenstone, p. 970 (Nov.)

UNDERCARRIAGE LOADS
A Convenient Way of Taking Wing (and Fuselage) Flexibility into Account in Calculating Undercarriage Loads, D. Williams, pp. 353-355S (April).
Problems of Undercarriage Design for V/STOL Aircraft, S. W. H. Wood (Lecture Summary), p. LXXX (Sept.).

UNDERWOOD, G. W.
Structural Testing (Lecture) (Gloucester and Cheltenham), pp. 863-872 (Oct.).

UWINS, C. F.
Correspondence on The Bristol Flying School, Larkhill, p. 198 (March).

VALLAT, SIR FRANCIS
The Outer Space Treaties (Lecture Summary), p. LXXXIX (Oct.).

VIBRATION
Coupled Vibration of Geared Systems, S. Mahalingam, pp. 522-526 (June).
Rotary Inertia and Shear in Beam Vibration Treated by the Ritz Method, B. Dawson, pp. 341-344 (April).
Some Remarks on the Zero Frequency Modes, B. Tabarrok, pp. 68-70 (Jan.).

V/STOL
Circulation Control and its Application to Stopped Rotor Aircraft, I. C. Cheeseman, pp. 635-646S (July).
Piloting Aspects of Poor Weather Jet V/STOL, J. F. Farley (Lecture Summary), p. XVIII (Feb.), (Lecture), pp. 893-902S (Oct.).
Review of V/STOL Aircraft with Tilt-Propellers and Tilt-Rotors, H. V. Borst, pp. 817-830S (Sept.).
STOL Aircraft—A Perspective, R. D. Hiscocks (23rd British Commonwealth Lecture), pp. 11-33 (Jan.).
V/STOL—Operational Research in the RAF, pp. 849-850 (Oct.).

WALTON, N.-B.
The New South Wales Air Ambulance, p. 956 (Nov.).

WEAPONS
Helicopter Armament for Land Operations, Brig C. D. S. Kennedy, 903-910S (Oct.).

WEATHER
The Atmospheric Environment and Aircraft—Now and the Future, F. O'Hara, pp. 467-480 (June).
Thunderstorm Project, K. B. Patrick, pp. 748-754 (Sept.).

WHEELER, AIR CMDRE. A. H.
Looking Ahead in Aeronautics 2: The Future for Agricultural Aviation, pp. 191-197 (March).

WHITTLEY, D. C.
The Augmentor-Wing Research Program: Past Present and Future (Lecture Summary), p. 238 (March).

WILBUR AND ORVILLE WRIGHT MEMORIAL LECTURE, FIFTY-SIXTH
A New Phase in Aviation?, Sir Robert Cockburn, pp. 199-208 (March).

WILBUR AND ORVILLE WRIGHT MEMORIAL LECTURE, FIFTY-SEVENTH
The Role of Competition in Aeronautics, G. Schairer (Lecture Summary), p. XCVIII (Nov.).

WILLIAMS, D.
A Convenient Way of Taking Wing (and Fuselage) Flexibility into Account in Calculating Undercarriage Loads, pp. 353-355S (April).

WILLIAMS, R. W. and CARTMELL, I. N.
Guided Weapon Simulators, Symposium, pp. 356-360S (April).

WILLIAMSON, R. G. and TYLER, R. A.
Sudden Area Enlargement Pressure Recovery with Inflow Distortion, pp. 243-244 (March).

WIND TUNNELS
A Hydraulic Transmission System for Powered Wind-Tunnel Models, K. J. England, pp. 460-466S (May).
Wind-Tunnel Techniques at Transonic Speeds, pp. 485-486 (June).

WINGS
The Calculation of Aerodynamic Forces and Pressures on Wings Entering Step Gusts, C. G. B. Mitchell, pp. 535-539S (June).
Flow Separation and Stall Characteristics of Plane, Constant Section Wings in Subcritical Flow, P. D. Chappell, pp. 82-90S (Jan.).
The Slender Wing with a Half-Body of Revolution Mounted Beneath, H. Portnoy, pp. 803-807 (Sept.).
Some Effects of Thickness on the Longitudinal Characteristics of Sharp-Edged Wings at Low Speeds, L. C. Squire, pp. 151-155 (Feb.).
Some Remarks on Vortex Drag and its Spanwise Distribution in Incompressible Flow, H. C. Garner, pp. 623-625 (July).

WOOD, H. B.
The Effect of Condensation on Hypersonic Laminar Heat Transfer to Cones, pp. 520-521 (June).

WOOD, S. W. H.
Problems of Undercarriage Design for V/STOL Aircraft (Lecture Summary), p. LXXX (Sept.).

YOUNG, A. D. and OWEN, P. R.
Correspondence on the Second Century Papers, p. 611 (July).

ZIENKIEWICZ, O. C. and ERGATOUDIS, J.
Comment on Complete Polynomial Displacement Fields for Finite Element Method by P. C. Dunne, March Journal 1968, p. 710 (Aug.).